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TRANSPORTATION SPECIALISTS

Unitary Plan Parking Standards

Number of Parking and Loading Spaces Required

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Project: **Unitary Plan Parking Standards**
Title: **Number of Parking and Loading Spaces Required**
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EXECUTIVE SUMMARY

Project Scope

Flow Transportation Specialists Ltd (Flow) has been commissioned by Auckland Council to investigate options for the number of parking and loading spaces which should be required in the Auckland Unitary Plan which is to be released later this year. The project investigates the options for parking and loading provision rules in all areas of the Auckland region, with the exception of the CBD which is being addressed under a separate commission.

The proposed rules and regulations will aim to implement the strategic approach to parking contained in the Auckland Regional Land Transport Strategy 2010-2040 (RLTS)[1] and the Auckland Regional Parking Strategy 2009 (RPS)[2].

The key deliverables of the project are as follows:

- A set of principles for determining when parking maximums (rather than, or as well as, parking minimums) should be applied
- A generic set of standards that specify the number of parking and loading spaces required for particular land use activities

Existing Practice

A review of the parking standards in the existing District Plans has revealed that most of the Auckland region is currently subject to minimum parking requirements. This is in contrast to the aims of the current strategic documents which specifically state that maximum parking requirements should be implemented in areas identified for intensification to help achieve intensive mixed use developments, improve housing affordability, reduce development costs and encourage use of public transport.

Recent plan changes have resulted in the implementation of parking maximums in some town centres including Newmarket, Sylvia Park, Orakei, Massey North and Hobsonville. Other plan changes have also resulted in reduced minimum parking standards for particular activities, again predominantly around mixed use town centres. These plan changes are more closely aligned with the Auckland regional strategic documents but to enable the targets of these documents to be realised these parking standards need to be implemented on a region wide scale.

Review Findings

The findings from a review of work already completed by former Councils, industry best practice and overseas is summarised in the following paragraphs. Based on this review a number of options regarding our approach to parking in the Unitary Plan were identified and analysed.

[1] Auckland Regional Council, 2010, Auckland Regional land Transport Strategy
[2] Auckland Regional Council, 2009, Auckland Regional Parking Strategy

The work already undertaken by some of the former local authorities in the Auckland region on amending parking standards is generally consistent with the aims and objectives of the regional policy documents (ARPS and RPS). That is, in the main these documents recommend the implementation of maximum parking rates in town centres and corridors identified for growth, in conjunction with additional parking management strategies.

A literature review of industry standard and best practice work reveals that most current guidance recommends the use of minimum parking rates, as is used in the current Auckland District Plans. However, the research has revealed that most standard parking rates are based on surveys carried out during the 1980s and 1990s, are from sites with an unrestrained parking supply with limited or no access to public transport, and are aimed at providing for peak parking demand. Our analysis reveals that the existing rates included in the Auckland District Plan documents are similar to these historic industry standard rates, indicating that they are not appropriate to use in many parts of Auckland, where travel alternatives are available.

A review of literature on the implementation of maximum parking rates reveals that this strategy can result in the benefits anticipated by the Auckland regional strategy documents such as increased density, improved urban form, improved affordability and increased use of public transport, walking and cycling. However there are some areas of concern including the potential for maximum parking rates to encourage development outside of town centres areas (where maximum rates do not apply). The literature also emphasises the importance of applying complementary strategies such as charging for on street parking to accompany the implementation of maximum parking rates. If maximum parking rates are to be incorporated into the Unitary Plan it is clear that some of these complementary strategies will be necessary and that this will have an implication on resource requirements for Auckland Council and Auckland Transport. However as selecting strategies is to some extent dependent on individual areas the challenge will be to form rules in the Unitary Plan which allow these strategies to be developed without necessarily requiring them.

A review of examples from Australian cities provides a useful insight into how parking is managed and supplied in other cities. However it is important to note that many of the local authorities in Australia manage very different geographical areas, both in size and population densities when compared to Auckland City. As a result caution needs to be exercised when using these examples.

Recommendations

Recommended Parking Provision Rules for the Unitary Plan

Following a review of Auckland Council's strategic aims, feedback from Auckland Council and Auckland Transport Officers and industry best practice the analysis outlined in this report has resulted in the following recommended approach to minimum and maximum parking rules for inclusion in the Unitary Plan. The approach is summarised in Table E1 with further detail provided in Table E2 and Table E3. It is noted that the recommended approach is subject to the further work identified in Section 9.3.

Table E1: Summary of General Approach

Location or Use	Parking Minimums Apply?	Parking Maximums Apply?
Urban centres and corridors identified for growth in Table 8.2 (p132) and Table 8.4 (p134) of the draft Auckland Plan (see also Map 8.2, p122 of the draft Auckland Plan). Subject to the further work identified below. Boundaries' of urban centres and corridors apply to sites located within: 1 km (measured along the road or pedestrian network) from an RTN stop (Rapid Transit Network = rail or busway) 800 m (measured along the road or pedestrian network) from a QTN stop (Quality Transit Network)	No – provided they are located on the QTN or RTN, or are planned to be on the QTN network by 2022. (Subject to a possible exception of residential land use activities). Yes – if they are not located on the QTN or RTN, and are not planned to be on the QTN network by 2022. Parking minimums = 75% of the maximum rates (ie approximately 63% of peak parking demand).	Yes. Parking maximums = than 85% of peak parking demand
Rural Satellite Centres identified in the draft Auckland Plan (p109) (i.e. Helensville, Kumeu Huapai, Pukekohe, Warkworth, Wellsford, Waiuku) (see also Map 7.1, p106 of the draft Auckland Plan) Boundaries' of rural satellite centres apply to sites located within 1 km of the identified central point (subject to further work identified below)	Yes as per urban centres and corridors not planned to be on the QTN by 2022. Parking minimums = 75% of the maximum rates (ie approx 63% of peak parking demand).	Yes. Parking maximums = no more than 85% of peak parking demand
Outside of urban centres and corridors (as identified in row 1 above)	Yes. Parking minimums = aim to permit approximately 75% of peak parking demand	Yes – for offices only (one space per 30 m² GFA)

Table E2: Recommended Maximum Parking Rates for Urban Centres and Corridors

Land Use	Maximum Parking Rate
Residential	1 per one bedroom dwelling
	2 per dwelling with two bedrooms or more
Commercial office activities	1 per 30 m^2 GFA
Retail and Other	1 per 25 m^2 GFA ground and mezzanine floors
	1 per 35 m^2 GFA above ground floors
Educational Facilities	Require an individual assessment as part of a Travel Plan

Table E3: Parking Rates Outside of Urban Centres and Corridors

Land Use	Sub Land Use	Minimum Parking Rate
Residential	Detached Household Unit (4 beds or less)	2 per unit (1 per unit in Hauraki)
	Detached Household Unit (5 beds or more)	3 per unit
	Attached Household Units (1 bed)	1 per unit plus one visitor space per 5 units
	Attached Household Units (2 bed or more)	2 per unit plus one visitor space per 5 units
	Retirement Independent Living Units	2 spaces per 3 units plus 1 visitor space per 5 units
	Minor household units	1 per unit
	Visitor accommodation	1 per unit/room/bed
Office and Commercial	N/A	A minimum of one car parking space per 45 m^2 GFA A maximum of one car parking space per 30 m^2 GFA
Retail	General retail	1 per 25 m^2 of GFA open to the public
	Food based retail	1 per 15 m^2 GFA
Industry	N/A	1 per two employees
Entertainment Facilities and Places of Assembly	N/A	1 per four people the facility is designed to accommodate
Child Care Centres	N/A	1 per ten children plus one per two staff members
Educational Facilities	N/A	An assessment of parking demand shall be submitted to Council for review and approval, taking into account the School Travel Plan process or

Medical Facilities	Public Hospitals	An assessment of parking demand shall be submitted to Council for review and approval, taking into account the Travel Plan process
	Private Medical Facilities (non residential)	One space per 20 m^2 GFA
	Private Medical Facilities (residential)	One space per three beds
All Other Activities	N/A	An assessment of parking demand shall be submitted to Council for review and approval

In addition to this the following generic standards should be included in the Unitary Plan:

- Minimum parking provision parking for cycle parking should be included at rate levels similar to the ARTA Guidelines. Some amendments have been recommended and are outlined in Section 8.2.3
- Minimum provision rates for motorcycle parking should not be included
- Parking provision for mobility impaired users should be required at the rates outlined in New Zealand Standards Design For Access And Mobility Buildings and Associated Facilities (NZS: 4121:2001)
- In urban centres and corridors the minimum requirement for loading facilities should be removed and replaced with a requirement for a Loading Management Plan
- Outside of urban centres and corridors required loading space rates should remain similar to the existing rates. In recommending a single rate for the Auckland region, the lowest rate currently used has been recommended.

The research has identified the need for a number of complementary measures to accompany the implementation of the recommended approach. Those complementary measures that are recommended for inclusion in the Unitary Plan are as follows:

- Shared parking and remote parking should be provided for in the Unitary Plan subject to recommended assessment criteria
- Unbundling of parking should be considered as a requirement for residential land uses in urban centres and corridors
- The supply of non ancillary parking in urban centres and corridors should be a discretionary activity. Applications should be assessed against strict assessment criteria
- Consideration should be given to requiring all land uses which supply more than ten parking spaces in urban centres and corridors to require resource consent. This will provide Council with good control over the provision of car parking in urban centres and corridors
- The Unitary Plan should require owners and tenants of land use activities within urban centres and corridors to be members of an urban centre Transport Management Association (TMA) and agree to the aims and objectives of the TMA. The TMA may be set up and run by Auckland

Council or Auckland Transport or in the case where there is one major developer, the development of the TMA may be required as a condition of consent

- Cash in Lieu should not be encouraged in the Unitary Plan but should be retained as a possibility for Auckland Council to use on a case by case basis if appropriate
- Consideration should be given to recovering some of the cost of parking management from development contributions. The detail as to when and how these contributions will be required and managed will need to the subject of a separate study
- The implementation of strong land use zoning policies, TDM requirements and the ongoing commitment to public transport improvements are considered to be important with regard to supporting the implementation of the strategy and it is assumed that other part of the Unitary Plan will address these issues.

Complementary Measures Outside of the Unitary Plan

In addition to the recommended parking provision rules to be included in the Unitary Plan additional complementary measures have been identified as required. These include the development of CPMPs and Walking and Cycling studies for urban centres and corridors.

The most important complementary measure is the development of CPMPs. It is considered the development of CPMPs for all urban centres and corridors is an essential accompaniment to the removal of minimum parking standards. However, CPMPs will not form part of the Unitary Plan and will be non statutory documents. There may be a need to include a provision for compliance with any existing CPMP in the Unitary Plan and this will need to be discussed further with Council planners.

It is acknowledged that there is risk associated with the fact that the Unitary Plan is likely to become operative before the completion of all of the CPMPs. However as discussed in Section 6.2.3, whilst it is acknowledged there is some risk of negative parking overspill effects occurring before the CPMPs are in place, it is considered that these risks should be given less weight than the risk of undesirable low density development in urban centres and corridors, which will be difficult to change once complete.

To minimise this risk, it is imperative that Auckland Transport prioritise the preparation of the CPMPs and it is recommended that Auckland Council obtain written confirmation from Auckland Transport confirming this commitment. Due to the number of urban centres and corridors identified, we recommend Auckland Council and Auckland Transport carry out a prioritisation process to ensure the centres most likely to be subject to parking overspill effects on the surrounding network are addressed first.

Identifying improvements aimed at encouraging walking and cycling through Walking and Cycling Studies is considered to be another important complementary strategy. Many people in Auckland undertake short local trips using private vehicles and encouraging the use of walking and cycling for local trips is an important aspect of providing well designed intensive centres. Many of the urban centres in the Auckland region have already been subject to Walking and Cycling Studies and we recommend these studies be prioritised, and if necessary updated, for all urban centres and corridors

Further Work

The recommended approach identified in Section 9.1 is subject to the outcomes of further analysis work which has been identified as follows:

- In recognition of the potential risks associated with the removal of minimum parking rates from local centres, it is recommended that further analysis work be undertaken on these centres. This could be in the form of a high level assessment of all of the Local centres for their appropriateness for the removal; of minimum parking requirements. A list of criteria should be developed based around existing and planned land use, land ownership, public transport accessibility and other relevant issues. Each Local centre can then be assessed against the agreed criteria. Although the information will not be to the detail anticipated in the CPMP, the high level information will help determine whether minimum parking rules should be removed at this stage or whether they should be retained subject to the completion of a CPMP
- The recommended approach for minimum parking rates for residential land uses in urban centres and corridors requires further consideration. Further discussion is required with the Council team developing residential land use rules aimed at encouraging a mix of residential types in urban centres and corridors to determine the most appropriate approach
- To provide further justification for the reduction of minimum parking rates outside of urban centres and corridors, case studies would have to be collected and analysed to complement the parking theory and anecdotal evidence relied on in this report
- Further research is required on walking catchments of existing urban centres in Auckland to justify the recommended generic cactchment areas identified for maximum parking provision rules for centres and corridors. This work could be undertaken in a similar manner to the ARTA study on Papatoetoe[3]
- Further work on the most appropriate parking provision rules for the central city fringe centres including Ponsonby, Three Lamps, Parnell, Grafton and Newton is recommended
- Further work is required to identify the most appropriate catchment area for maximum parking rates for rural satellite centres
- Further analysis work is required on existing office, industrial park and retail centres which have not been identified as a centre or corridor in the Draft Auckland Plan but which may also be suitable for the removal of minimum parking rates (examples include Smales Farm, Highbrook, North Harbour and the airport)
- The urban centres and corridors identified as having limited growth opportunities should be further investigated for their suitability for maximum parking rates.

In addition to these specific recommendations for further work, it is recommended that some testing be undertaken on the recommended approach. This could be in the form of some case studies on different centres and corridors and applying the rules theoretically to identify any unintended consequences.

[3] Beca, 2010, ARTA Pedestrian Studies – Analysis and Findings

CONTENTS

TABLES AND FIGURES

ACRONYMS

ARTA	(Former) Auckland Regional Transport Authority
CCO	Council Controlled Organisation
CPMP	Comprehensive Parking Management Plans
DCP	Development Control Plan
GFA	Gross Floor Area
GLFA	Gross Leasable Floor Area
GPFA	Gross Public Floor Area
ITA	Integrated Transport Assessment
ITE	Institute of Transportation
LCN	Local Connector Services Network
LEP	Local Environmental Plan
LGA	Local Government Plan
LUTI	Land Use and Transport Integration Index
PT	Public Transport
PTAL	Public Transport Accessibility Level

QTN	Quality Transport Network
RLTS	Regional Land Transport Strategy
RPS	Auckland Regional Parking Strategy
RTN	Rapid Transport Network
RTA	Roads Traffic Authority
TDB	Trips Database Bureau
TDM	Travel Demand Management
TMA	Transport Management Association

APPENDICES

1 INTRODUCTION

1.1 Purpose

Flow Transportation Specialists Ltd (Flow) has been commissioned by Auckland Council to investigate options for the number of parking and loading spaces which should be required in the Auckland Unitary Plan. Drafting of the Unitary Plan is timetabled for 2012. The project investigates the options for parking and loading provision rules in all areas of the Auckland region, with the exception of the CBD which is being addressed under a separate commission.

The proposed rules will aim to implement the strategic approach to parking contained in the Auckland Regional Land Transport Strategy 2010-2040 (RLTS)[4] and the Auckland Regional Parking Strategy 2009 (RPS)[5].

The key deliverables of the project are as follows:

- A set of principles for determining when parking maximums (rather than, or as well as, parking minimums) should be applied
- A generic set of standards that specify the number of parking and loading spaces required for particular land use activities
- A report that describes the process by which the recommended principles and standards have been developed and gives robust reasons for the recommendations.

The report concentrates on our recommendations with regard to rules to be applied to off street ancillary parking facilities (ie permitted parking associated with a particular development). However the report also considers the provision of standalone commercial parking buildings and on street parking in the context of their impact on achieving the wider aims of the Unitary Plan. It is noted that the management of on street parking is the responsibility of Auckland Transport, not Auckland Council and the recommendations outlined in this report therefore apply to both organisations.

1.2 Our Approach

The approach to the creation of the parking and loading supply standards for the Unitary Plan is based on the aims and objectives of the Auckland RLTS and the RPS as well as taking into account the following philosophies and outcomes:

- The development of vehicle access and parking/loading supply principles and standards need to reflect a new direction and we need to ensure we “think outside the square” and are not afraid to try new things
- In the current environment we must consider how parking and loading supply can impact on the urban fabric of our city and how we can accommodate these needs whilst also achieving high quality urban design, in particular Auckland’s ability to become a compact city

[4] Auckland Regional Council, 2010, Auckland Regional land Transport Strategy
5 Auckland Regional Council, 2009, Auckland Regional Parking Strategy

- Economic development is a key consideration as parking and loading are vital to the success of businesses and our communities. We need to ensure businesses, both commercial and industrial, as well as retail, residential, education, health, recreation and community activities can prosper under the new Unitary Plan, on a level playing field
- We need to ensure the new parking supply standards and principles encourage the use of and viability of sustainable transport modes
- The new parking standards must be outcome focussed with the aim of achieving the best outcome with the best value.

1.3 Structure

This report outlines our research and findings of this project and provides reasons for our recommendations. The report is structured into eight sections as follows:

- An introduction to the origin of parking provision standards
- A summary of the existing parking provision standards in Auckland as contained in the existing District Plans (including relevant recent plan changes) and the aims and objectives of the existing Strategy and Policy documents with regard to parking supply in the region
- An outline of the information gathered to identify options including a summary of relevant work already completed by the former Auckland authorities, best practice literature, overseas examples and findings from the consultation workshops held with staff from Auckland Council and Auckland Transport
- An outline of the identified aims and objectives of parking provision standards in the Auckland Region
- An evaluation of the various options identified with regard to the implementation of maximum and minimum parking provision rules
- An outline of the recommended complementary measures required to achieve the recommended option
- An evaluation of the various options for generic parking and loading standards for all road users including cyclists, motorcyclists and mobility impaired users
- Our confirmed list of recommendations, including explanation and justification for these recommendations

2 THE ORIGIN OF PARKING SUPPLY STANDARDS

The transport system is made up of three parts; Vehicles, rights of way (such as roads) and storage (parking). Parking is needed to allow for the safe storage of vehicles while they are not in use and enables drivers to undertake their intended activity at their destination. As vehicles are required to park at every destination parking is an essential element of the system and forms an interface between the road network and other land uses[6].

[6] Marsden, 2006, The evidence base for parking policies – a review , Journal of Transport Policy

If parking is not managed appropriately it has the potential to create negative effects including, but not limited to, excessive queuing and vehicle accidents on the surrounding road network. It is generally the responsibility of the road controlling authority to ensure that parking is provided in a safe and efficient manner, and with due regard to considerations of access to, and the impact on, the wider road and transport system[7]. The traditional approach to managing the risk of negative effects of parking has been to bundle the cost of parking management into the cost of development through requiring developers to provide all parking on site through minimum parking requirements[8].

Historically the minimum parking supply standards have been set at a level to ensure that the full car parking demand is satisfied on site for most of the year, and for most developments of that type. These rates have generally been set through collecting data from similar land uses in other locations. In theory (at least for visitor generating activities) "reasonable" minimum rates are intended to be set at 85 % to 95 % parking satisfaction for all but the busiest times of the year[9]. However there is an expectation that when setting minimum parking rates at this level that a portion of the parking supply will be underutilised for most of the time. Traditionally this has been accepted as a necessary side effect of ensuring that overspill parking demand onto the surrounding road network occurs in only a small minority of cases.

More recent research has found that these minimum parking rates have resulted in an oversupply of parking, particularly in urban centres, and that there are significant negative effects of this oversupply. These negative effects include inefficient use of development sites, increased cost of development, undesirable urban design practices (such as urban sprawl) and discouraging the use of more sustainable transport modes such as public transport (ie as a travel demand management tool). This has led to professionals having to rethink this traditional approach to parking supply standards.

3 AUCKLAND TODAY

3.1 Auckland Region

Auckland Council was formed in November 2010 and forms an amalgamation of seven former local authorities, forming the largest local authority in Australasia. The new Auckland unitary authority is made up of 13 wards and 21 local boards which together manage an area of 4,894 km^2 and a population of 1,462,000 people[10]. Auckland Council has seven council controlled organisations, including Auckland Transport.

Auckland Transport combines the transport expertise and functions of the former seven local councils, the Auckland Regional Council and the Auckland Regional Transport Authority (ARTA). The establishment of Auckland Transport marks the first time in Auckland's history, that all transport functions and operations for the city, have come under one organisation. Auckland Transport is

[7] Austroads, 2008, Guide to Traffic management, Part 11: Parking
[8] Shoup, 2005, The High Cost Of Free Parking, Chicago Planners Press, American Planning Association
[9] Transfund New Zealand, 2001, Research Report 209: Trips and Parking Related to Land Uses, Volume 1
[10] http://www.stats.govt.nz/aucklandcouncil, Visited 29 October 2011

responsible for all of the region's transport services (excluding state highways) from roads and footpaths, to cycling, parking and public transport. Among its main tasks are:

- To design, build and maintain Auckland's roads, ferry wharves, cycleways and walkways, including on street and council owned off street public parking facilities
- Co-ordinate road safety and community transport initiatives such as school travel
- Plan and fund bus, train and ferry services across Auckland.

The geographical area governed by Auckland Council and managed by Auckland Transport is not only large but extremely varied with urban, suburban, rural and coastal environments. The vastness of the area and the variety of environments encompassed makes the creation of parking provision standards for the whole region particularly challenging. Consideration needs to be given to the needs and aspirations of all of the region's environments.

3.2 Existing Auckland Parking Standards

3.2.1 General Approach

The parking supply standards for the Auckland Region are currently included in the existing nine District Plans including the District Plans for Auckland (Isthmus[11], Central Area[12] and Hauraki[13] sections), North Shore[14], Rodney[15], Waitakere[16], Manukau[17], Franklin[18] and Papakura[19]. The transport sections of these District Plans were written at various times dating from 1996 to 2011. The most recent updates to a transport section of a District Plan was made by the former Rodney District Council in 2011.

A full summary of the parking supply standards for all District Plans are detailed in Appendix A with some of the general points outlined in the following sections. The main exceptions to these general rules are the Auckland Central Area section and the Waitakere District Plan. The points below do not apply to these Plans, which are discussed further in Section 3.2.2.

3.2.1.1 Parking Spaces

Key observations with regard to the existing standards for the supply of car parking spaces are summarised below.

- Most existing District Plans include a statement of the aims of the parking standards which are similar to that included in the Auckland Isthmus Section below:

[11] Auckland City Council, 1999, Auckland City District Plan – Isthmus Section
[12] Auckland City Council, 2004, Auckland City District Plan – Central Area Section
[13] Auckland City Council, 2006, Auckland City District Plan – Huaraki: Gulf Islands Section
[14] North Shore City Council, 2002, North Shore City District Plan
[15] Rodney District Council, 2011, Rodney District Plan
[16] Waitakere City Council, 2007, Waitakere City District Plan
[17] Manukau City Council, 2002, Manukau City District Plan
[18] Franklin District Council, 2000, Franklin District Plan
[19] Papakura District Council, 1999, Papakura District Plan

"The parking and loading provisions aim to ensure adequate off-street parking and loading facilities for all activities and avoid the negative effects from overspill parking onto the roadside, to facilitate the efficient movement of traffic and on the road network and reduce potential traffic hazards and inconvenience to vehicle operators."

These statements are very much akin to the traditional approach of managing parking standards as discussed in Section 2, which is typical of the time in which these Plans were written

- Minimum parking standards are required for all land use activities in most areas (some exceptions are discussed below)
- All of the District Plans include an extensive list of land use activities including between 50 to 70 classifications each. While there are common land uses in all of the District Plans, there are also a number of differences in their description and definitions resulting in a total list of around 140 different land use activities
- Parking rates are generally based on the size of the building (Gross Floor Area) but other variables include Gross Leasable Floor Area (GLFA), number of employees, visitors or persons the facility is design to accommodate
- Generally the minimum parking standards are similar across the land uses but variations do exist between the District Plans. A summary of the main land use activities (residential, retail and commercial/offices) is provided in Table 1. The rates outlined in Table 1 are the general rates and there have been some exceptions implemented through Plan Changes (discussed below)
- Providing parking levels not meeting the minimum parking requirements is classified as a discretionary activity and requires resource consent
- Most Plans mention some parking management measures (such as shared parking).

Table 1: Comparison of Minimum Parking Requirements

Land Use	Auckld Isthmus	Auckld Haurakai	North Shore	Manukau	Rodney	Franklin	Papakura	Waitakere[20]
Resid-ential	2 per unit	1 per unit	1 per unit for GFA <50 m^2 2 per unit with a GFA >50 m^2	2 per unit	2 per unit	2 per unit	2 per unit	2 per unit in the Living Environment 1 per unit in Other Environments

[20] Note these parking provision standards are taken from the Waitakere District Plan not the Parking and Driveway Guideline

Table 1: Comparison of Minimum Parking Requirements

Land Use	Auckld Isthmus	Auckld Haurakai	North Shore	Manukau	Rodney	Franklin	Papakura	Waitakere[20]
Retail/ shops	1 per 17 m^2 plus 1 per 40m2 for outdoor, staff amenity or office space	1 per 40 m^2 GFA of retail shop and outdoor retail plus 1 space per 80 m^2 for staff and office space	1 per 20 m^2	1 per 20 m^2	1 per 20 m^2	1 per 15 m^2 (minus availabl e on street parking)	1 per 40 m^2	1 per 20 m^2 in the Working Environment and 1 per 16 m^2 in the Community Environment
Office	1 per 40 m^2	1 per 50 m^2	1 per 35 m^2	1 per 20 m^2 public areas plus 1 per 40 m^2 for other area	1 per 35 m^2	1 per 40 m^2	1 per 20 m^2 plus 1 per 40 m^2 for non public areas	1 per 35 m^2 in the Working environment and one per 30 m^2 in the Community Environment

3.2.1.2 Cycle and Motorcycle Parking

Most existing District Plans make no provision for minimum requirements for cycle or motorcycle parking. The only exception is the recently released draft Waitakere Parking and Driveway Guidelines[16] which is discussed in Section 3.2.2.2.

3.2.1.3 Parking For Mobility Impaired Users

Minimum provision for parking for mobility impaired users is provided for in all District Plans. Generally the Plans refer to the New Zealand Standards Design For Access And Mobility Buildings and Associated Facilities (NZS:4121:2001) or its previous 1985 version. However, there are some differences in the way this is dealt with in the Plans. For examples some Plans merely refer to the standard (for example Auckland Isthmus Section) whilst others specifically state the number required in the District Plan. Another area of difference is that the North Shore Plan explicitly states that mobility parking spaces should be provided in addition to the requirement for standard parking spaces, others clearly state the mobility parking spaces should be provided as part of the total and others are unclear.

3.2.1.4 Loading Spaces

Minimum rates for the provision for loading spaces are provided in all of the District Plans. A full summary of the rates is included in Appendix B.

Generally all land use activities require a designated space for loading (with the exception of stand alone residential dwellings). The number of loading spaces required varies according to whether the

activity is goods handling (for example warehouse, retail and industry related activities) or non goods handling activities (such as office and residential). The exception is Franklin where the different loading requirements are based on whether the site is within a business centre or outside of a business centre.

The number of loading spaces required is calculated based on the Gross Floor Area (GFA) of the activity and is applied on a sliding scale, for example one loading space required for activities with a GFA up to 5,000 m^2, two spaces are required for activities up to a GFA of 10,000 m^2 and then one additional space required for every additional 5,000 m^2 of activity. The rates for each geographical area are similar but vary slightly with Rodney having the highest requirement.

If an applicant wishes to deviate from the loading space requirements then a resource consent is required for a discretionary activity. The assessment criteria is based around the potential negative effects of the operation and safety of the surrounding road network.

3.2.2 Exceptions

3.2.2.1 Auckland District Plan: Central Area Section (2004)

The Auckland District Plan Central Area section became operative in 2004 and differs from the other District Plans as the objectives and policies clearly aim to encourage the use of sustainable transport modes. To achieve this objective maximum standards apply to car parking spaces for all activities with minimum standards applying to loading, bus and coach parking spaces only.

The number of parking spaces permitted in each site in the Central Parking District is still proportionate to the building size but is also dependent upon the road serving the site, with every road in the Central Parking District rated according to the acceptable level of traffic movement likely to be generated by car parking with the capacity of each site restricted accordingly. All land use activities are treated the same with an allowable number of parking spaces per 100 GFA m^2. The exception is residential accommodation which is permitted one parking space for units up to 79 m^2 and two parking spaces for units of 80 m^2 or over.

Loading bays are required at very similar rates as the rest of the former Auckland City for all activities, although the Plan states that for larger activities one space can be on street as opposed to be provided on site.

Minimum requirements for cycle and motorcycle parking are not included.

3.2.2.2 Waitakere District Plan Guidelines Parking Draft (2010)

As mentioned previously, most of the existing District Plans include a list of minimum parking requirements for different land uses. The Waitakere District Plan is different to the other District Plans in that includes a very limited number of parking rates within the Plan itself. In addition, parking supply rules and the philosophy behind them are also included in the Parking and Driveway Guidelines document which was originally released in 1997 and was updated in 2010. It is highlighted that the Waitakere Code of Practice guidelines do not form part of the district plan and can only be referred to when a resource consent is triggered.

The updated Guideline generally retains the permitted minimum and maximum controls included in the District Plan and those introduced as part of plan changes already completed. Currently maximum controls apply only to the Hobsonville Base Village Special Area and the Massey North Town centre Special Area. However, the intention is to progressively convert to maximum controls in all main growth centres and corridors. In addition to this minimum parking requirements have been removed for small sites (less than 1,000 m^2) in New Lynn. This approach anticipates that there will be some shift to sustainable transport modes and public/private sector provision for, and management of overflow parking on a user pays market driven basis.

The number of land use activity classifications is significantly less than the other Plans with only three classifications, namely residential, retail and other. However the original table of land uses from the previous version of the Guide, with some 60 land uses is also included as an appendix to the Guideline, though these do not represent minimum parking rates.

The Guideline also outlines the Council's consenting expectations and provides additional guidelines to applicants on how applications for car parking numbers differing from the District Plan minimum or maximum levels will be treated. Most notably the document states that Council seeks to achieve a more productive and attractive use of development resources, to support the walking and cycling modes, and stem the creation of underutilised parking.

Loading requirements remain the same as in the previous version of the Guidelines and are similar to other local authorities in the Auckland region.

Recommended rates for cycle parking ratios are also included in the Guideline

3.2.3 Plan Changes

A summary of relevant Plan Changes to all District Plans is provided in Table 2. These Plan Changes are provided in date order and either include reduced minimum parking rates for specific activities (for example retirement villages, offices and residential units in mixed use areas) or apply maximum parking rates to particular areas (predominantly town centres).

The following key points are noted:

- Maximum rates have been applied to some urban centres which have been identified as being desirable for growth either as a mixed use town centre or an employment centre
- In most cases where maximums have been applied, maximum rates have been set at the current District Plan minimum rates
- In most cases where maximum standards have been applied, minimum standards have also been retained (ie providing a range). The only exception to this is Smales Farm where only maximums have been applied and in some town centres (New Lynn, Newmarket) where minimum rates do not apply to sites with a GFA of less than 1,000 m^2
- The minimum parking rates are generally set below the existing District Plan parking rates (usually at 75 % of current rates)

- In other areas, maximum rates have not been applied but there appears to be a precedent for lowering existing minimum parking rates for high density residential units, offices in town centre locations and activities above ground floor levels
- For some examples the rates are phased in as the development grows, particularly for commercial activities (for example Sylvia Park and Smales Farm).

Table 2: Plan Changes

District Plan	Plan Change	Status	Parking Standards
Auckland Isthmus	Plan Change 196 (Newmarket)	Decision 2007 (under appeal)	In the core parking area: • Maximum onsite parking standards are included for all activities • Minimum parking standards applied to activities on the ground floor only • No minimum standards for activities less than 1000 m^2 • No on-site parking provided where access to on-site car parking requires direct access from key pedestrian streets • Minimum cycle parking standards apply In the outer car parking area: • Minimum and maximum rates apply for all activities • Generally minimums are set at 75 % of the existing rules and maximums at the existing DP rules • Different rates apply to ground floor activities and offices/warehousing/healthcare • Additional flexibility is provided for ground floor activities if the parking is allocated to visitors • Minimum cycle parking standards apply
Waitakere	Plan Change 17 (New Lynn)	Decision 2007 (under appeal)	• No minimum requirement for car parking associated with residential units or for any non residential activity on a site on the ground floor and /or less than 1000 m2 in parts of New Lynn • Reduced minimum car parking standards for all activities above ground floor level and/or over 1000 m2 in size
North Shore	Plan Change 19 (Business 12 Mixed use Browns Bay and Albany Village)	Operative 2008	• Reduced minimum parking rates for residential and office activities in this zone
North Shore	Plan Change 9 and Variation 67	Operative 2008	• Reduced minimum parking standards for studios and one bedroom units and retail units in certain areas in

Table 2: Plan Changes

District Plan	Plan Change	Status	Parking Standards
	(Albany)		Albany mixed use zone
Auckland Isthmus	Plan Change 210 Selwyn Heights	Operative 2009	• Reduced minimum standards for parking required for retirement apartment/units in retirement villages
Auckland Isthmus	Plan Change 235 Sylvia Park	Operative 2010	• Parking rates set at a minimum rate equal to 75 % of the car parking rates of the existing District Plan and at a maximum rate not exceeding the existing car parking rates • The exception is office activities where the maximum provisions are on a sliding scale, dependent upon the total office GFA on the site • Parking on site may be shared between activities but total available office parking shall not exceed the maximum rates set out • No minimum parking requirements for cyclists are included but infrastructure for cyclists is addressed as part of a required Transport Management Plan
Auckland Isthmus	Plan Change 260 Orakei Point	Decision 2011 Under Appeal	• Maximum parking rates apply for the mixed use zone for all activities • Minimum parking rates also apply and are set at 75 % of the maximum rates • Parking can be provided on site or on another site within the precinct • Minimum loading rates apply but may be waived if the applicant can demonstrate there is an accessible nearby common loading space
North Shore	Plan Change 37 and Variation 9 (Residential 8 Zone Anzac Street)	Further submissions closed March 2011	• Introducing maximum parking rates for residential and commercial activities (office, medical related activities and small retail nodes) • Minimum rates are still maintained but are set lower than the existing District Plan rates (based on an existing provision of public parking) • Fewer car parks are required on the first floor as it is anticipated that ground floor commercial activities are more likely to comprise of visitor related activities than those on the first floor • Permitting unbundling of parking spaces
North Shore	Proposed Plan (Private) Change 34	Submissions Closed November	• Reduced minimum requirements for 1 and 2 bedroom apartments

Table 2: Plan Changes

District Plan	Plan Change	Status	Parking Standards
	Milford Intensive Residential Development Overlay	2011	• No specific requirement for visitor parking and this is shared with existing parking
North Shore	Plan Change 35 Smales Farm	Operative 2011	• Maximum rates are included for all activities within this zone. The rates provided are on a sliding scale based on the total development with a capped maximum for the entire site • An increase in the maximum number of parking spaces of up to 10 % is available by means of a limited discretionary activity on condition that a Travel Demand Management Plan is being actively monitored
Waitakere	Plan Change 15 (Massey North)	Part operative 2011	• Maximum parking rates supplied for all non residential activities with the exception of supermarkets • No parking is required for residential activities above ground floor level within the town centre • Minimum requirements remain for loading spaces and spaces for mobility impaired users
Waitakere	Plan Change 14 (Hobsonville)	Decision 2011 Under appeal	• Maximum parking rates supplied for all non residential activities with the exception of supermarkets • No parking is required for residential activities above ground floor level within the town centre • Minimum requirements remain for loading spaces and spaces for mobility impaired users
Franklin	Plan Change 24 (Pokeno)	Operative 2011	• Reduced minimum parking requirements for residential units • Formed on street parking spaces adjacent to the site can be included as part of the car parking requirement
Auckland Isthmus	Plan Change 8 St Lukes (proposed)	Under appeal	• Reduced minimum parking rates for retail, eating places, community welfare facilities and healthcare services once development exceeds a certain level

3.3 Auckland Regional Strategies

3.3.1 Overview

One of the aims of the Unitary Plan review is to implement the strategic approach to parking contained in the Auckland Regional Land Transport Strategy 2010-2040 (RLTS) and the Auckland Regional Parking Strategy 2009 (RPS). In addition to this the Auckland Council has recently released the draft Auckland

Plan[21] which also outlines key aims for parking rules. The approaches to parking rules included in these three documents are summarised in the following sections.

3.3.2 Auckland Regional Land Transport Strategy

The 2010 Auckland Regional Land Transport Strategy (RLTS)[22] was formally adopted by the Auckland Regional Council (now Auckland Council) and sets the direction for the region's transport system for the next 30 years. The strategy builds on the momentum already generated by the 2005 strategy which looked to substantially improve public transport and complete key elements of the strategic road network with an emphasis on managing the demand for travel. The 2010 RLTS continues to support renewed investment in public transport and supports Auckland's vision as a great and successful society, economy and environment.

The RLTS 2010 sets out six strategic priorities for reaching the desired destination:

- Continuing to improve public transport
- Integrating transport and land use to support a compact and contained urban form
- Changing travel behaviours
- Improving the operation of existing roads
- Building limited additional roads
- Reducing the impact of travel on the environment and communities.

The strategy also includes recommendations to change parking measures in those centres across the region which are planned for growth and have good access to public transport. These measures include setting limits on parking provision, parking charges, park-and-ride facilities and providing cycle parking.

3.3.3 Auckland Regional Parking Strategy

The Auckland Regional Parking Strategy (RPS) sets out a new direction for the supply and management of parking in the Auckland region. Adopted by the former Auckland Regional Council in March 2009, it provides guidance to territorial authorities as they review district plans, and parking plans and policies.

The goal of the strategy is that the provision of car parking contributes toward the land use, transport, economic, environmental and community outcomes sought by the region. Parking should assist in the creation of an integrated transport network for the region through parking supply, management, pricing and control policies that:

- Support plans for land use intensification around selected mixed high density centres and corridors
- Encourage travel behaviour changes for a more sustainable, less car use intensive future
- Support the economy of the region’s activity and commercial centres

[21] Auckland Council, October 2011, Draft Auckland Plan
[22] Auckland Regional Council, Auckland Regional Land Transport Strategy, 2010

- Integrate parking supply and management and implementation actions with planned improvements to the Public Transport (PT) system
- Support increased travel by PT and active modes
- Make better (more efficient, environmentally and socially friendly) use of existing parking resources
- Achieve consistency in District Plan rules and standards for parking provision and operation among equivalent developments in centres throughout the region, and
- Contribute to more efficient land uses, improved urban design, public amenity and high quality open space, particularly in high density centres and corridors.

The Strategy states that parking can have a significant influence on car use, traffic congestion and the sustainability of the transport system. The availability and cost of car parking influences how and when people travel, and where they go. Parking facilities impact on the urban environment, and may take up valuable space and significantly increase property development costs.

The key components of the RPS are:

- The introduction of maximum parking standards for new developments in high-density, mixed-use town centres and corridors identified for intensive development in the Auckland Regional Policy Statement
- The associated preparation of comprehensive parking management plans (CPMP) for each centre. The strategy includes guidelines for CPMPs, including criteria for assessing applications for parking in excess of 100 spaces and for assessing applications exceeding the permitted maximums
- Policy guidelines identifying measures for better integrating parking management with regional land use and transport strategies and plans, and for making effective use of the available parking supply and any additional funds generated
- Regional guidance on urban design, parking on arterial roads and park and rides
- Communicating the need for change
- Identification of areas needing further research.

3.3.4 Draft Auckland Plan

The Draft Auckland Plan was released in October 2011. The Auckland Plan is a spatial plan for the entire Auckland region following amalgamation of the former seven local authorities and the regional council into the one Auckland Council. In summary the Auckland Plan sets out:

- Long term objectives (social, economic, environmental and cultural) for Auckland and its communities
- Auckland's role in New Zealand
- Existing land use patterns and how Auckland will grow and develop in the future
- Existing and future locations of critical infrastructure facilities such as transport, water supply, wastewater and stormwater, other network utilities, open space and social infrastructure
- Areas of national and regional significance for ecology, recreation and open space, landscapes, heritage, natural features and environmental importance

- What policies, priorities, land allocations, programmes and investments will be needed to achieve the Auckland Plan's strategies.

Chapter 8 of the Auckland Plan outlines the strategic direction for urban Auckland. The overall goal is to create a stunning city centre with well connected quality towns, villages and neighbours. To achieve this three key priorities are identified:

- Realise a quality compact city
- Create enduring town centres and neighbourhoods
- Demand good design in all development

Auckland's urban centres are classified according to the future role and functions (taking into account their existing role and functions) they are expected to perform. Centres are classified into the following:

- The city centre (including the waterfront)
- City fringe centres
- Metropolitan centres provide, or will in the future provide, for growth to serve sub regional catchments
- Satellite centres are rural centres identified for growth
- Town centres are of a smaller scale to metropolitan centres but still provide a range of diverse services and are identified for future growth
- Local centres focus on retail and community services and although important will not accommodate substantial growth and intensification

In addition to urban centres, intensive corridors that link the various metropolitan and town centres and will be the focus of future growth are also identified.

Parking standards are specifically addressed in the Auckland Plan as contributing towards good urban design. The Plan states that inflexible or inappropriate parking standards (for example parking minimums) can be counterproductive to delivering the goal of intensification, mixed use and affordability. Specifically, Directive 8.8 of the Plan states that parking standards should take account of multiple objectives including the need to:

- Achieve intensive and mixed use developments
- Improve housing affordability
- Reduce development costs
- Encourage use of public transportation
- Optimise investments in public parking facilities, civic amenities and centre developments.

Also of relevance is Chapter 11 of the Plan which outlines Auckland's strategic transport objectives and targets. The five targets identified are outlined below:

- Increase non car trips in the peak period from 23 % to 37 % of all trips by 2040

- Increase Public Transport mode share for mechanised trips into the city centre for the morning peak from 47 % in 2011 to 69 % by 2040
- Reduce road deaths from 61 (2007) to no more than 40 and serious injury crashes from 483 (2007) to no more than 288 in 2040
- Reduce freight congestion in peak periods by 20 % by 2040
- Increase the number of growth centres with QTN or RTN services from 44 % to 80 % by 2040.

3.4 Summary of the Existing Situation

The review of the parking standards in the existing District Plans has revealed that most of the Auckland region is currently subject to minimum parking requirements. This is in contrast to the aims of the current strategic documents which specifically state that maximum parking requirements should be implemented in areas identified for intensification to help achieve intensive mixed use developments, improve housing affordability, reduce development costs and encourage use of public transport.

Recent plan changes have resulted in the implementation of parking maximums in some town centres including Newmarket, Sylvia Park, Orakei, Massey North and Hobsonville. Other plan changes have also resulted in reduced minimum parking standards for particular activities, again predominantly around mixed use town centres. These plan changes are more closely aligned with the Auckland regional strategic documents but to enable the targets of these documents to be realised these parking standards need to be implemented on a region wide scale.

4 INFORMATION GATHERING

4.1 Previous Work

4.1.1 Auckland City Council District Plan Stage 3 Parking Policy Summary (2009)

The Auckland City Council Parking Policy Summary report was written by the former Auckland City Council in 2009. This report was the first stage of the Isthmus District Plan review issues and options identification discussing policy direction on parking. The report states that the goal is to achieve a level of parking where the supply, availability and cost of parking is able to support and manage growth expectations across the city.

The report proposes a framework to integrate the cumulative effects of the parking network, at site and network scale, at both policy and spatial levels. It uses land use outcomes from the Auckland City Council Future Planning Framework[23] as a basis for organising parking policy direction. The Future Planning Framework was released in 2010 and classifies centres in the former Auckland City Council boundaries according to growth (now replaced by the draft Auckland Plan).

[23] Auckland City Council, 2010, Future Planning Framework Version 3

Generally the recommendations of the report are that parking rates should be based on the potential for demand management (e.g. provision of public transport and active modes) to moderate the need for on-site parking in the context of developing Comprehensive Parking Management Plans (CPMP). This includes the replacement of parking minimum rates with parking maximums within areas identified as town centres in the Future Planning Framework. This approach is consistent to that outlined in the Auckland Regional Parking Policy and the Draft Auckland Plan.

4.1.2 Waitakere City Parking Plan (2009-2040)

The Waitakere City Parking Plan was released in 2009 with the purpose of the Plan to set out policies and actions in relation to the provision and management of parking in Waitakere from 2009 to 2040. A broad range of recommended complementary approaches to supply and management of parking are included in this Plan. The most noteworthy are:

- Introduction of parking maximum standards to limit the provision of parking in growth areas
- Extension of paid parking to other off street car parks in Waitakere town centres
- Introduction of on street paid parking in the core of Waitakere's three major town centres (Henderson, New Lynn and Westgate) and its gradual extension within these centres and to other growth areas (most town centres and growth corridors) in Waitakere
- Provision of parking buildings where required to support intensive mixed use (residential and commercial) development in growth areas (most town centres and growth corridors) in Waitakere.

In respect of these proposed measures, the Waitakere Council resolved to introduce parking maximums in growth areas (most town centres and growth corridors) in Waitakere timed to coincide with the electrification of the western rail line in 2013. In addition the updated Parking and Driveway Guideline (discussed in Section 3.2.2.2) aims to give greater flexibility with regard to parking requirements before electrification occurs and also (post electrification) to other town centres which are not identified as growth areas..

4.1.3 A Strategy For Providing and Managing Public Parking In Town centres (2009)

This discussion report was commissioned by the former North Shore City Council in 2009[24]. The purpose of the project was to identify current parking policy, what is currently working and what is not working, and to identify the ways in which current policy should be modified so that it better aligns with Council's objectives for the town centres in the city. Case studies covered included five existing town centres within the North Shore being Devonport, Takapuna, Highbury, Browns Bay and Albany Village.

An assessment of regional policies relating to parking, and parking policies elsewhere in New Zealand, revealed that a new policy for town centres should be considered on the North Shore. This would relate parking requirements less to the needs of each particular development, and more toward "delivering outcomes" for a centre. These outcomes include transportation related issues (for example

[24] Flow Transportation Specialists and Hill Young Cooper, 2009, A Strategy for Providing and Managing Public parking in Town Centres, completed for North Shore City Council

parking policies that contribute to travel demand management), urban design and land use and including the encouragement of dynamic growth centres.

The report sets out a number of tools and strategies that increase parking efficiency, reduce parking demand, and support strategies. It recommends that detailed Parking Plans for each town centre are prepared which:

- Confirm the parking objectives of the town centres
- Develop the methodology for planning and managing parking in town centres
- Develop and confirm the approach for providing off street parking
- Review parking standards
- Develop parking plans for each town centre.

4.1.4 Comprehensive Parking Management Plans (CPMPs)

The Auckland Regional Parking Strategy recommends that Comprehensive Parking Management Plans (CPMPs) be prepared for each town centre identified for intensive growth. As a consequence the former Waitakere City Council previously completed CPMPs for some of their town centres including New Lynn[25] and Henderson. Parking Plans have also previously been prepared by the former Auckland City Council for some town centres including Onehunga[26] and Mt Albert[27]. However these parking plans predate the release of the Auckland Regional Parking Strategy. Generally CPMPs plans:

- Identify parking management actions which support the development of the town centre with specific emphasis on land use intensification and supporting the town centre's economic viability and vitality
- Integrate parking policy and management and the location of off street parking facilities with committed and planned transport improvements, with particular emphasis on public transport infrastructure and service improvements, the pedestrian and cycle networks and urban design objectives
- Identify the regulatory approach to parking within the town centre
- Identify appropriate tools to manage parking in the town centre
- Staged implementation over a 30 year period to reflect planned changes in the town centre.

These reports address parking standards in specified area and therefore are at a more detailed level than is suggested for the Unitary Plan. The findings of the reports are useful as they provide examples of how parking standards can be managed in town centres. For example, recommendations from the New Lynn CPMP include:

- The provision of park and ride facilities for an interim period
- Supporting the introduction of maximum parking rates in line with electrification of the rail network

[25] Waitakere City Council, 2009, New Lynn Town Centre Parking Management Plan, Consultation Draft
[26] Auckland City Council, 2006, Onehunga Parking Plan
[27] Auckland City Council, 2005, Mt Albert Parking Plan

- Investigating the use of pay and display parking in some council owned parking which are currently free
- Introduction of time limited parking and paid on street parking on certain identified streets
- The introduction of a parking signage and wayfinding system
- The creation of a Transport Management Association.

CPMPs are undertaken by Auckland Transport. To assist with this, Auckland Transport has formulated guidelines. Those guidelines are attached as Appendix C.

4.2 Literature Review Of Standards And Best Practice

4.2.1 Parking Minimums

4.2.1.1 Car Parking

Most industry standard best practice documents which are used by transport and planning professionals in New Zealand today recommend the use of minimum parking requirements and outline recommended rates for different land uses. The three main documents in use in New Zealand are:

- Transfund New Zealand Research Report No 209, Trips and Parking Related to Land Use (2001) and the associated Trips Database Bureau (TDB) (updated annually)
- The Roads and Traffic Authority (RTA), Guide to Traffic Generating Developments, Version 2.2 (2002)
- The Institute of Transportation (ITE) Manual (2004), Parking Generation

These documents are generally aligned with the traditional approach to parking supply which encourages the management of potential parking overspill on the road network in all areas through requiring all parking to be provided on site. For example, the RTA Guide states that adequate off street parking discourages on street parking, thereby maintaining the existing levels of service on the road network and contributes to the economic vitality of development[28]. The ITE Guide differs slightly from the other two in that it provides peak parking generation data for different land uses but does not go as far as to use the data to recommended minimum parking rates.

Where relevant, the levels at which recommended minimum parking requirements are set in these guidelines are based on surveys undertaken throughout NZ, Australia and the United States and are generally aimed at providing for peak use times. Specifically:

- The minimum recommended rates included in the Transfund Research Report No 209 are aimed at providing for 85 % parking satisfaction during peak periods. The peak demand is based on data collected throughout New Zealand during 1990s (this report is currently being updated based on the data gathered by the TDB but has not yet been released)
- The minimum recommended rates found in the RTA Guide are based on surveys and research conducted by the RTA between 1979 and 1994 in Australia. The rates recommend parking rates needed to meet the peak parking demand observed.

[28] RTA, 2002, Guide to Traffic Generating Developments, Page 5-1

Likewise the data included in the ITE Guide and the TDB is generally based on peak demand, specifically:

- The TDB collects NZ data on an ongoing basis but relies on consultants and local authorities to provide the survey data. The database was implemented in 2001 but does not have high volumes of data for all land uses. The database is focussed on trip generation but some surveys include information on parking supply and demand
- The parking generation data provided in the ITE Guide is based on surveys and data collection undertaken in the USA between the 1980s and 2001 and represent the peak parking demand for different land uses. The guide specifically states that most of the data are from suburban sites with isolated single land uses with free parking.

A full list of the typical parking rates provided in these industry standard guidelines is provided in Appendix D with a summary of the key land use activities provided in Table 3.

Table 3: Comparison of Industry Standards Minimum Parking Guidelines

Land Use	Transfund Research Report No 209	TDB	RTA Guide	ITE Guide
Residential	1 - 2 per dwelling	N/A	1.8 to 2.8 per unit	1.4 to 2 per unit
Retail	Dependent on size: Ranging from 1 per 24 m^2 - 1 per 16 m^2	Average of 1 per 45 m^2	Dependent on size: Ranging from 1 per 12.5 m^2 - 1 per 11 m^2	Dependent on size: Ranging from 1 per 22.7 m^2 - 1 per 18 m^2
Office	1 per 35 m^2	Average of 1 per 31 m^2	1 per 31 m^2	1 per 23 m^2

Whilst these data sources outline recommended minimum parking rates, there is guidance which states that caution should be exercised when applying standard parking rates to developments. For example, Austroads[29] states that parking provision standards should be applied with caution for the following reasons:

- Standards are often arbitrary and based on highly scattered data. For example ranges for some activities can be large and applying an average for all can result in excessive parking for some and insufficient parking supply for others
- Conditions may vary widely for developments and land uses of the same type, and for different locations within an urban region. Specific parking needs may be quite different from those indicated in a rigid table of parking provision requirements. Also, changes in parking demands over time may render documented parking provision standards inapplicable.
- Parking provision requirements are based on parking generation studies that are typically performed at new, suburban sites with free parking. The parking provision standards resulting from this approach tend to be unnecessarily high for urban areas with good multi modal

[29] Austroads, 2008, Guide to Traffic Management, Part 11, Parking

accessibility options, and where parking is typically priced. In fact, the ITE Guide specifically states that most of the data is from individual suburban sites without any parking restraint.

Current literature on the subject confirms this issue with Shoup[30] stating that the process on which parking minimums are generated is flawed. They are usually based upon peak occupancy from areas with little public transport and high car use. He argues that the parking generation data included in the ITE Guide are inflated by free parking with no explanation of where data was collected and why and nothing said of off-peak occupancy. Planners interpret these requirements as the actual demand for parking, neglecting the fact that it only relates to free parking. These peak parking occupancy rates at free sites become the minimum number of spaces that must be provided by all. As a result the true cost of parking to the user is subsidised by the developer, thus distorting the cost of using private vehicles when compared to other travel options such as public transport.

It is noted that when comparing the rates for the three main land use types outlined in Table 3 to the rates included most Auckland District Plans (outlined in Table 1) it can be seen that they are very similar. This indicates that the rates included in the existing District Plans are generally based on these industry standard documents (or at least similar data sources).

4.2.1.2 Loading

There is limited industry best practice information with regard to the most appropriate supply of loading spaces for different developments. Austroads[29] refers to the rates included in current District Plans in New Zealand and provides an example of rates used in the Brisbane City Plan. The RTA Guide includes some recommendations for provision of on site parking for courier, delivery and service vehicles. The Guide generally states that provision must be made on site at a convenient location for the type of delivery service vehicles appropriate to the type of development, and a number of parking spaces provided to suit the scale of development. Consideration should also be given to the future use of the site and the type of service vehicles which may service the site.

The number of service bays required for a development depends on the size and nature of the development. The Guide includes data from the Council of the City of Sydney which developed a code for the provision of service bays based on surveys undertaken in 1972. However, because of the age of the data used, major developments should ideally quantify their service vehicle requirements through new surveys of similar developments. It is noted that these rates were updated with the release of the draft City of Sydney Development Control Plan in 2010.

Generally the rates included in the RTA Guide are higher than those included in the current Auckland District Plans but the principle of ensuring the servicing of sites is managed appropriately without safety or operational effects on the surrounding road network is consistent.

4.2.1.3 Requirements for Cycle And Motorcycle Parking

The industry standards documents discussed in Section 4.2.1.1 do not generally address requirements for parking for cycles or motorcycles. Austroads[29] provides some guidance on recommended supply

[30] Shoup, 1999, The Trouble With Minimum Parking Requirements, Transportation Research Part A Volume 33

levels and some District Plans (namely Christchurch City and cities in Australia) also include some guidance on rates.

For cycle parking the main reference document used in Auckland is the former Auckland Regional Transport Authority (ARTA) Integrated Transport Assessment (ITA) Guidelines[31] which includes recommendations for the provision of cycle parking which should be provided with different developments. A summary of these requirements is included in Appendix E, which also includes a comparison of the Austroads rates with rates included in some overseas District Plans. Some key observations from the ARTA guidelines include the following:

- The Guidelines distinguish between five types of bicycle parking, namely customer/visitor short term, customer/visitor short to medium term, public long term, private long term and temporary
- The Guidelines classify land use into 12 categories and provides different rates for each type of cycle parking
- The different land use categories use different criteria for measurements with GFA, number of people, units and number of car parking spaces
- The provision of employee cycle parking is based on data collected from travel plan surveys in 2007 which indicates that 3-5 % of employees cycle to work. In order to accommodate the aims of the RLTS through increasing cycle trips, the provision for bicycle parking for 10 % of employees was selected by ARTA for inclusion in the guidelines
- The Guidelines clearly state that the ratios in the document are to be used as guidelines only and the actual ratios used will depend on accessibility of the site, location of the site and availability of car parking.

It is difficult to make comparisons between the different rates available due to the different criteria used (for example number of staff or parking spaces versus GFA). However, in general it appears that the ARTA rates are quite similar to the rates included in the Austroads guide.

Parking for motorcyclists is also addressed in the Austroads guide, which states that exclusive parking spaces should be provided in response to demand. The Auckland Regional Parking Strategy[34] recommends that conditions of consent for developers should include a requirement that 2 % of spaces should be dedicated to motorcycles or scooters.

4.2.1.4 Parking For Mobility Impaired Users

In New Zealand requirements for parking for mobility impaired users are outlined in NZS 4121:2001 Design for Access and Mobility: Buildings and Associated Facilities which is written to give effect to the requirements of the 2004 Building Act[32]. Section 47A of the Building Act states the following:

> *"In any case where provision is being made for the construction or alteration of any building to which the public are to be admitted, whether on payment or otherwise, reasonable and adequate provision by way of access, parking provisions, and sanitary*

[31] ARTA, 2007, Integrated Transport Assessment, Guidelines and Supplementary Documents
[32] Building Act, 2004

conveniences, shall be made for persons with disabilities who may be expected to visit or work in that building and carry out normal activities and processes in that building."

NZS 4212: 2001 gives further guidance on this and states that where car parking is provided which is to be accessed by the public, spaces for mobility impaired people must be provided at the rates outlined in Table 4.

Table 4: Car Parking For Mobility Impaired Users

Total Number Of Car Parks	Number of Accessible Car Parking Spaces
1-20	Not less Than 1
21-50	Not Less than 2
For every additional 50 car parks or part of a car park	Not Less than 1

Other points to note are as follows:

- Mobility spaces are not required for private residential units unless the units have been designed as accessible units
- Specific building types such as medical centres, entertainment centres and large retail facilities should provide greater numbers of accessible car parks than the minimum required
- If no parking is provided on site then there is no requirement for the provision of parking spaces for mobility impaired users.

4.2.2 Parking Maximums

4.2.2.1 Maximum Rates For Car Parking

More recently many cities (including Auckland and Wellington in New Zealand) have recognised the need to implement parking maximums, creating ceilings for the amount of parking included in new developments. The advantages of parking maximums are well documented in current best practice literature[33] and the existing Auckland Regional Strategy Documents[34]. In summary, appropriate limits to the number of off street parking spaces that landowners may develop meets both region and developer interests. The region gains environmental benefits from preserved open space, limited impervious surfaces, more attractive and pedestrian-friendly urban design, increased affordability and improved design flexibility. In addition, the disincentive to single occupant car use created by limiting parking availability encourages use of alternatives such as public transport, cycling, walking and carpooling. Consequent reduction in private car use may improve mobility by reducing congestion, and improve air quality[35]. The developer benefits from not having to provide an oversupply of on site parking, freeing up land for larger developments to occur.

How parking maximums are applied to a city varies from place to place. For example in Auckland and Wellington the maximum parking limits apply to all land uses (with the exception of residential units)

[33] For example Litman, Shoup, Marsden
[34] Auckland Regional Council, 2009, Auckland Regional Parking Strategy
[35] Weinberger et al, 2010

in the City central area only, while other cities apply the principle more widely. Some general principles are outlined below.

- Maximum rates are usually implemented in large commercial centres as part of integrated programmes to reduce excessive parking supply
- Maximum rules are often applied only to certain types of parking eg long term, single use, free, surface parking
- Sometimes the maximum rates are accompanied by a form of Public Transport Accessibility Index to justify the reduction in parking supply in some areas and not others.

While the benefits of introducing maximum parking rates are clear, there are some concerns that restricting parking supply in certain locations can impact on the economic vitality of a development within the area. Attempts to use parking policies, especially supply limitation policies, as a travel demand management (TDM) tool, depend on there being good alternatives to access goods, services and other opportunities. For example, limiting parking at one retail location that is similar to in its attributes to a number of other locations may simply result in shopping trips being diverted to those other locations[29]. Litman[36] argues that case studies suggest parking restrictions will not have negative economic impacts of developments in cities with strong and vibrant economic structure. The research base does not support, or actually provide evidence to the contrary, the concern and assumption that parking restraint makes centres less economically attractive. Marsden[37] also reviews the response of local economies to parking policy and finds that overall the evidence base is still relatively weak but there is enough to challenge the orthodoxy existing that parking restraint will discourage economic development.

This issue is relevant as in Auckland there is some anecdotal evidence that this may be an area of concern. For example, the hearing for Plan Change 235 to the Auckland City District Plan – Isthmus section raised the potential effect of restricting parking supply at Sylvia Park. There was significant discussion during the hearing process that the parking rates, particularly for offices, would impact on the economic vitality of this land use[38], particularly when offices offering much higher parking rates are located in close proximity to the site. As a result maximum parking rates for office development were included in the plan change but on a sliding scale with the maximum allowable number reducing as the total office GFA increased. Although there appears to be no studies on the true impact of maximum parking rates on the economic viability of land uses in Auckland, it is clearly an area of concern for some private developers, particularly areas where the town centre role of the area is still developing.

The example of Plan Change 235 also raises an area of concern with regard to ensuring that the introduction of maximum parking rates does not discourage development in town centres due to the fact that similar land uses can be developed in other areas with no minimum parking requirements. Indeed, Austroads[29] states that parking management policies and programs should be co-ordinated throughout the District, or region, rather than being applied in only a few areas, such as a town centres.

[36] Litman, 2011, Changing Vehicle Travel Price Sensitivities, Victoria Transport Policy Institute
[37] Marsden, 2006, The evidence base for parking policies – a review , Journal of Transport Policy
[38] Auckland City Council, 2010, Evidence from the hearing for Plan Change 235

4.2.2.2 Parking Management Strategies

While the negative effects of minimum parking rates are evident, the reason why they were implemented (managing the effects of parking overspill) remain. For example if the parking supply is currently set at providing for 90 % parking demand at peak times then parking overspill will occur very infrequently. If the supply rate is reduced to say providing for 50 % parking demand at peak times (or less) then it is logical that parking overspill onto the road network will occur much more frequently. Therefore, these effects still need to be considered and managed. In fact, most best practice literature states that parking policies (such as the introduction of parking maximums) should not be developed in isolation. They are most effective when part of comprehensive parking management strategies and integrated into local, regional, spatial and transport planning processes[37].

There are many different parking management strategies which can be used to accompany the introduction of parking maximums (or in their own right) to help manage parking demand and/or manage the effects of parking overspill.

The most common method of managing parking demand (after parking supply rates) is pricing. Shoup[39] argues that local authorities should provide chargeable on street parking rather than require the provision of off street parking, thus transferring the cost of parking from the developer to the user. As a result motorists will economise on parking by changing their travel behaviour. Pricing is also advocated by Litman[36] who states that pricing is a more efficient and equitable method of managing parking overspill than requiring parking minimums. This has the advantage of a reduction in the number of parking spaces needed to meet demand and therefore a reduction in the total development costs and more compact development. In addition, it encourages more efficient use of the parking available with long term parkers encouraged to use less convenient spaces and regular commuters to use alternate modes, ensuring short term parking spaces are available to facilitate freight, business trips and visits. Lastly charging for on street parking provides an income source for local authorities which can be used to benefit the local area.

In addition to the introduction of parking maximums and pricing, Litman[40] provides a summary of strategies aimed at increasing parking efficiency and/or reducing parking demand as well as a list of supporting strategies. These are outlined below.

4.2.2.3 Strategies to Increase Parking Facility Efficiency:

- Shared parking: Parking spaces serve multiple users or destinations, including sharing rather than assigning reserved spaces to users, and sharing facilities among multiple destinations
- Parking regulations: Regulations that favour higher-value uses such as service vehicles, deliveries, customers, quick errands, and people with special needs
- Remote parking: Provide off-site or urban fringe parking facilities, and encourage their use
- Smart growth: Encourage more compact, mixed, multi-modal development, which encourages sharing of parking facilities and use of alternative modes

[39] Shoup, 1999, The Trouble With Minimum Parking Requirements, Transportation Research Part A Volume 33
[40] Litman, 2007, Parking Management Strategies, Evaluation and Planning, Victoria Transport Policy Institute

- Walking and cycling improvements: Improve walking and cycling conditions to expand the range of destinations serviced by a parking facility and reduce car trips
- Increase capacity of existing facilities: Increase parking supply by using otherwise wasted space, smaller stalls, car stackers and valet parking.

4.2.2.4 Strategies that Reduce Parking Demand:

- Mobility management: Encourage more efficient travel patterns, including changes in mode, timing, destination and vehicle trip frequency
- Parking pricing: Charge motorists directly for using parking facilities, with efficient prices that include lower rates during off-peak periods and higher rates during peak times and locations
- Improve pricing methods: Use better charging techniques to make pricing more convenient and cost effective
- Financial incentives: Provide financial incentives to shift mode, such as parking cash-out and passenger transport benefits, often as an alternative to parking subsidies
- Unbundle parking: Rent or sell parking facilities separately from building space
- Parking tax reform: Various tax policy changes that support parking management objectives
- Bicycle facilities: Provide bicycle storage and changing facilities.

4.2.2.5 Supporting Strategies:

- Improve user information and marketing: Provide convenient and accurate information on parking availability and price, using maps, signs, brochures and electronic communication
- Improve enforcement and control: Ensure that parking regulation enforcement is efficient, considerate and fair
- Transportation management associations: Establish member-controlled organizations that provide transport and parking management services in a particular area
- Overflow parking plans: Establish plans to deal with periods of peak parking demand
- Address spillover problems: Use management, enforcement and pricing to address spillover problems, such as undesirable use of nearby parking facilities
- Parking facility design and operation: Improved parking facility design and operations to help solve problems and achieve parking management objectives.

It is important to note that not every strategy is appropriate in every situation. Actual impacts vary depending on geographic and demographic factors as well as how a strategy is implemented and other factors. However Litman provides some general guidelines as shown below.

- Impacts are higher where there are more parking and travel options. For example, parking pricing will have greater demand reduction impacts if implemented in conjunction with improvements in public transport services
- Financial incentives tend to have greater impacts on lower-income consumers
- Some strategies are complementary. For example, shared parking becomes more effective if implemented with suitable regulations, pricing and walkability improvements

- Impacts generally increase over time as programs mature. A low impact may be appropriate in the first year, but can increase to a medium impact after two or three years, and high impact after five or ten years.

If maximum parking rates are to be incorporated into the Unitary Plan it is clear that implementation of some of these complementary strategies will be necessary. However, as selecting strategies is to some extent dependent on individual areas, the challenge will be to form rules which will allow these strategies to be developed without necessarily requiring them.

As discussed in Section 3.3.3, The Auckland Regional Parking Strategy recommends the development of Comprehensive Parking Management Plans (CPMP) for urban centres which are subject to maximum parking requirements. The aim of these CPMPs is to determine the most appropriate management strategies for each area. It is noted that a number of these strategies have implications with regard to resources from Auckland Transport. Many of the strategies require increased management of on street parking which is generally the responsibility of Auckland Transport. To some extent the introduction of maximum parking rates removes the burden of parking management and provision from the private developer and places it on the local authority. In Auckland this responsibility will generally fall to Auckland Transport who may need to increase their management of on street parking. This needs to be recognised and managed through the CPMP process.

4.3 International Examples

A review into car parking provision of a number of overseas cities has been undertaken. Generally, we have concentrated on examples from Australia which are considered to be the most relevant to Auckland and the Australian examples provide a good representation of available options used overseas. A summary of key observations are provided in the sections below.

4.3.1 Sydney

4.3.1.1 Central Sydney

The car parking rates for central Sydney are outlined in the draft Local Environmental Plan 2011 (LEP) and the draft Sydney Development Control Plan 2010 (DCP). The draft LEP applies to most of the City of Sydney Local Government Area (LGA) and is the principal legal document for controlling development and guiding planning decisions made by Council. The draft DCP applies to the same area but is a non-legal document which supports the LEP with more detailed planning and design guidelines.

In summary, the LEP outlines maximum parking rates for all land use activities throughout the whole of central Sydney. Minimum parking rates are not used. The level of maximum parking rates is based on access to public transport and services. For example a site classified as being in Land Category A is considered to have very good access to public transport and therefore has a lower maximum parking rate than land classified as Category C. The accessibility calculation involves two indices:

- PTAL Index – the Public Transport Accessibility Level Index (applies to non-residential development and determines level of access to public transport). This is the same model developed by Transport for London to determine the level of access to public transport. Using

data from Transport NSW Transport and Population Data Centre, the model identifies the public transport services, including trains, light rail, monorail, buses and ferries, within walking distance of a parcel of land. Each parcel of land is assigned an accessibility category based on the number of public transport services within certain walking distances

- 'LUTI' Index – the Land Use and Transport Integration Index (applies to residential development and combines access to public transport with access to urban centres). The LUTI Index applies to residential development and combines access to public transport with access to urban centres, where residents can access neighbourhood services such as shops. The LUTI Category is based on the walking distance to an identified urban centre from a parcel of land as well as the number of public transport services that are within walking distance of that parcel.

These two indices have been mapped across central Sydney and are used to determine the maximum rates of car parking for non-residential and residential land uses respectively. It is noted that the difference in parking provision between the land uses is quite substantial with for example maximum rates for retail activities ranging between one parking space per 50 m^2 and one parking space per 175 m^2.

A summary of other key observations regarding the central Sydney LEP and DCP are outlined below.

- As part of their application for consent, developers are asked to show how they are managing transport demand. Specifically the application must refer to the measures taken which minimise the need to travel and the length of trips, particularly by cars, and also encourages travel by more sustainable modes of transport
- Only eight land use categories are used to determine maximum parking rates. The LEP states that where the development comprises a land use not specified in the LEP, the proposed rate of car parking provision is to be justified via a Parking and Access Report
- The Plan states that for residential buildings, car parking spaces are to be allocated to dwelling units in accordance with parking rates in the LEP and are to be a part lot to a dwelling unit in a strata plan so that they remain connected to the dwelling. Therefore unbundling of parking is not permitted
- Minimum rates for loading spaces are included
- Where the proposed land use is a hotel, factory outlet store or other use that attracts persons arriving or leaving by bus or coach, a development application is to include a Parking and Access Report which assesses the provision of bus/coach set-down and parking
- Minimum parking rates for cycling are included for a number of activities
- Parking spaces for motorcycle parking are to be included in the overall parking supply at a rate of the area equal to one car parking space for every 50 car parking spaces provided
- Parking for mobility impaired users is required except that accessible parking is not required in car parking areas where a parking service is provided and direct access to any of the car parking spaces is not available to the general public or occupants
- Specific requirements for car sharing schemes are included in the Plan

- In order to discourage commuter car parking and to provide short stay car parking in Central Sydney, a fee structure and restriction on hours of use is to apply to public car parking.

4.3.1.2 North Sydney

The rules outlined in Section 4.3.1.1 above apply to the central area of Sydney only. As the Auckland Unitary Plan will be covering a much larger area it is important to look at examples of other local authorities in Sydney. North Sydney is part of inner Sydney and is located on the northern side of the Sydney Harbour. The parking rules for North Sydney are included in the North Sydney's Development Control Plan (DCP) which was adopted in 2001. Key observations include:

- Maximum parking rates apply to all activities. However the DCP also states that on-site car parking provision significantly below the maximum rates specified will generally not be accepted due to the impact that additional vehicle parking may have on surrounding residential streets
- Minimum car parking requirements apply to visitor parking for residential developments
- Eighteen land use categories are used to outline parking requirements
- For some land use activities different rates apply for identified centres
- Minimum parking rates for motorcycles are included at the minimum rate of one space per 10 cars
- There are no requirements for cycle parking
- Parking for mobility impaired users must meet the relevant Australian standard.

4.3.1.3 Leichart

Leichart also forms part of inner Sydney and is located to the west of the City of Sydney. The car parking requirements are outlined in the Leichart Development Control Plan (DCP). Although the DCP was written in 2000, the car parking requirements were amended in 2003. Key observations include:

- Minimum and maximum rates are provided for all land use activities (therefore resulting in a range)
- A total of sixteen different land use classifications are used but the DCP also gives guidance on how the car parking requirement will be assessed if the land use activity is not included in the list
- For some activities (residential, professional consulting rooms) a distinction is made between visitor spaces and staff spaces and a minimum requirement for visitor spaces is included
- For activities generating employment (for example office and retail) staff parking rates should be based on 80 % to 100 % of parking demand based on mode split assessment
- There is no distinction made between different areas of Leichart with regard to parking standards
- Council may require taxi, private vehicle and coach drop off/set down areas where the proposed development warrants the facility but there appears to be no minimum requirement for loading bays
- Minimum rates are provided for bicycle parking for both employees and visitors

4.3.1.4 Parramatta

Parramatta forms part of outer Sydney and is located approximately 20 km west of the Sydney CBD. The car parking requirements are outlined in the Parramatta DCP which was released in October this year. Key observations include:

- Minimum rates for car parking are used with the exception of the two main urban areas, where minimum and maximum rates apply for business, retail and office activities
- A lower minimum rate applies to residential units within 400 m walking distance of a railway station or transitway bus stop with a service frequency of an average of ten minutes or less during the morning peak period (7 am - 9 am) in either direction
- The land uses are categorised into 11 classifications. The Plan states that if a particular land use is not addressed, where appropriate car parking rates will be based on either the RTA Guide for Traffic Generating Developments, or a traffic and parking survey considering a similar land use in a similar location
- The Plan includes minimum requirements for cycle parking for residential flat buildings, business premises, office premises, retail and industrial developments.

4.3.2 Brisbane City

The Brisbane metropolitan area provides an interesting example to review in regard to Auckland most of the metropolitan area is managed by one local authority and prior to Auckland being created it was the largest local authority in Australasia. The Brisbane City Council manages an area of 1,367 km^2 which includes a population of 1,067,279 people in 2010[41]. This compares to Auckland Council which manages an area of 4,894 km^2 with a population of 1,462,000.

The parking requirements for Brisbane City are included in the Brisbane City Plan which was released in 2000. Key observations include:

- Minimum parking rates are included for all activities with the exception of activities located within a centre and within 200 m of a railway station entry or busway station where maximum rates apply
- For land use activities located within a centre but outside of the 200 m catchment, lower minimum rates apply
- A total of 16 land use classifications are included
- Minimum requirements for bicycle parking are included.

It is noted that the Brisbane City Plan was written in 2000 and the Council is in the process of reviewing the Plan with the aim of releasing a new draft City Plan in 2012. While details are not yet available, one of the aims of the new plan is to address the need for more sustainable living such as minimising vehicle trips and improving access to facilities. It is anticipated that the new City Plan may include more restrictive parking requirements as part of this process.

[41] Australian Bureau of Statistics, 2010, http://www.abs.gov.au/ausstats/abs@.nsf/Products/3218.0~2009-10~Main+Features~Queensland?OpenDocument, visited 25 October 2011

4.3.3 Melbourne

4.3.3.1 Central Melbourne

The City of Melbourne's parking supply rates are included in the City of Melbourne Planning scheme. The car parking section of the Plan is dated 2006, with specific requirements related to some central areas dated 2008. Key observations include regarding the parking requirements include:

- Minimum car parking rates apply to all activities except in the Capital City and the Docklands Zones where maximum rates apply
- Minimum provision is made for motorcycle parking in the central areas
- There appears to be no minimum provision for bicycle parking but the extent of bicycle parking provision is identified in the assessment criteria for exceeding the maximum permitted parking requirements in the central areas
- There are no minimum requirements for bicycle or motorcycle parking outside of the central areas.

4.3.3.2 Banyule

Melbourne is similar to Sydney in that it has a large number of small local authorities, so we have also reviewed one of the local authorities located outside of the centre of Melbourne. The City of Banyule is a located in the north eastern suburbs of Melbourne and lies between seven and 21 km from central Melbourne. Key observations include:

- The minimum car parking requirements are the same as included in the City of Melbourne (the same Planning Scheme is used), except that reduced minimums parking rates are provided for the main activity centre in Banyule
- No minimum requirements for bicycle or motorcycle parking are included.

4.4 Consultation

A workshop was held with staff from Auckland Transport and Auckland Council on Friday 16 September 2011. The aim of the workshop was to understand how the existing parking and loading supply standards are working currently and to gather suggestions for how these could be improved. It was considered to be important that feedback was gathered from people who are working with these standards on an everyday basis and to understand the different requirements of the different parts of Auckland.

A full summary of the feedback received at the workshop is provided in Appendix F and the key issues raised include:

- Most attendees were generally in favour of the implementation of maximum parking rates but had some concerns relating to ensuring the rules did not encourage development outside of urban centres and how the required resource from Auckland Council and Auckland Transport would be managed
- Council staff advised that developers prefer to avoid resource consents and notification by complying with current parking minimums, even if they think this will result in a parking

oversupply. This can result in the optimum site layout being rejected in favour of one which complies with parking provision requirements and sometimes can result in an oversupply of parking

- Many people felt that there needed to be some kind of public transport accessibility index or measurement tool which could be used to justify the implementation of maximum parking rates in some places and not others. Others felt that a blanket maximum rate across the whole region may be most appropriate
- Mixed feedback was received with regard to the level of existing minimum parking rates with some people stating that the minimum rates were too high (particularly for restaurants, cafes and taverns) and others stating that in some areas the existing minimum rates were not high enough (for example in Ellerslie Office Park)
- There was debate over whether specific minimum parking rates should be included in the Unitary Plan or whether the Plan should just refer to industry best practice
- It was felt that generally the Unitary Plan could do more to encourage parking management strategies such as shared parking etc
- It was generally considered that minimum requirements for cycle parking (including short and long term facilities and end of trip facilities) should be included
- It was generally felt that the requirement for loading facilities should be based on anticipated need, rather than on default requirements and that standards needed to be more flexible
- It was generally felt that parking for mobility impaired users should meet the Building Act but ideally there would be some flexibility with regard to provision of spaces on small sites and the possible use of on street spaces as an alternative.

4.5 Summary of Information Gathered

The following provides a summary of the information gathered for the project outlined in Section 4.

The work already undertaken by some of the former local authorities in the Auckland region on amending parking standards is generally consistent with the aims and objectives of the regional policy documents (ARPS and RPS). That is, in the main these documents recommend the implementation of maximum parking rates in town centres and corridors identified for growth, in conjunction with additional parking management strategies.

A literature review of industry standard and best practice work reveals that most current guidance recommends the use of minimum parking rates, as is used in the current Auckland District Plans. However, the research has revealed that most of the standard parking rates are based on surveys carried out during the 1980s and 1990s, are from sites with an unrestrained parking supply with limited or no access to public transport, and are aimed at providing for peak parking demand. Our analysis reveals that the existing rates included in the Auckland District Plan documents are similar to these historic industry standard rates, indicating that they are not appropriate to use in many parts of Auckland, where travel alternatives are available.

A review of literature on the implementation of maximum parking rates reveals that this strategy can result in the benefits anticipated by the Auckland regional strategy documents such as increased density, improved urban form, improved affordability and increased use of public transport, walking and cycling. However there are some areas of concern including the potential for maximum parking rates to encourage development outside of town centres areas (where maximum rates do not apply). The literature also emphasises the importance of applying complementary strategies such as charging for on street parking to accompany the implementation of maximum parking rates. If maximum parking rates are to be incorporated into the Unitary Plan it is clear that some of these complementary strategies will be necessary and that this will have an implication on resource requirements for Auckland Council and Auckland Transport. However as selecting strategies is to some extent dependent on individual areas the challenge will be to form rules in the Unitary Plan which allow these strategies to be developed without necessarily requiring them.

A review of examples from Australian cities provides a useful insight into how parking is managed and supplied in other cities. However it is important to note that many of the local authorities in Australia manage very different geographical areas, both in size and population densities when compared to Auckland City. As a result caution needs to be exercised when using these examples.

5 AIMS AND OBJECTIVES OF THE PARKING STANDARDS IN AUCKLAND

Following the review of the existing information available, we consider that it is important to understand the aims and objectives of the Unitary Plan Parking and Loading Standards for Auckland. The Draft Auckland Plan discussed in Section 3.3.4 of this report directs that parking standards should take account of multiple objectives, including the need to:

- Achieve intensive and mixed use developments
- Improve housing affordability
- Reduce development costs
- Encourage use of public transportation
- Optimise investments in public parking facilities, civic amenities and centre developments.

In addition to these objectives consideration also need to be given in the Unitary Plan to the following:

- The Auckland region is wide and varied and there are locations outside of town centres where it will be desirable to still manage the potential effects of overspill parking onto the road network by requiring developers to provide parking on site
- Another objective should be to enable flexibility of design to ensure parking standards do not impact on good urban design or the most efficient use of the site being realised
- Parking supply has significant potential to be a Travel Demand Management (TDM) tool as a parking shortage, if managed appropriately, can be used to reduce the number of single occupancy vehicle trips made to a destination
- The parking standards should recognise the true economic costs and benefits of parking
- The parking standards need to try to avoid unintended consequences, for example through incentivising out of centre developments.

These aim and objectives have been used to inform the options discussion included in the following sections. However, it is recommended that these aims and objectives be developed further through the drafting of a policies and objectives section in the Unitary Plan.

6 CRITERIA FOR IMPLEMENTING MAXIMUM PARKING STANDARDS

6.1 Options Identification And Analysis

6.1.1 Urban Centres and Corridors

As outlined in Section 3.3 of this report, the existing Auckland regional strategies, including the Auckland RLTS, the RPS and the Draft Auckland Plan recommend an approach whereby maximum parking rates are implemented in urban centres and corridors which are identified for intensification. When the Regional Parking Strategy was released, the list of town centres and corridors referred to for intensification was that included in Schedule 1A of the Regional Policy Statement [42]. This list has now been replaced by the list of urban centres and urban corridors identified in Table 8.2 and Table 8.4 of the Draft Auckland Plan.

It is noted that this list differs slightly from the list included in Schedule 1A of the Regional Policy Statement as it does not include rural growth centres which have been identified separately in the Draft Auckland Plan as Rural Satellite Centres in Chapter 7 of the Draft Plan. In addition, within the list identified in the Draft Auckland Plan some urban centres and corridors have been identified as having limited opportunities for growth because of constraints such as heritage, amenity and/or infrastructure provision.

The definitions of urban centres and corridors are discussed further in Section 6.2.1 of this report. However, for the purposes of the evaluation of options in Section 6.1.2, the term “urban centres and corridors” is used to describe those centres and corridors in the Auckland Plan with the exception of those centres which are identified to have limited opportunities for growth but including centres which are identified as Rural Satellite Centres.

6.1.2 Options Identification

Following a review of the Auckland Regional strategic documents, the recent work completed by former local authorities, recent plan changes, best practice literature and overseas examples there appears to be substantial benefits and precedent for including maximum parking rates in the Unitary Plan. However, it has also been revealed that there are additional options to the approach recommended (that being implementing maximum parking rates in urban centres and corridors only) and as a result an options analysis has been undertaken.

To ensure a thorough analysis we have identified a list of options which is outlined in Table 5. These options explore the possibilities with regard to where maximum parking rates could be implemented

[42] Auckland Regional Council, 2010, Auckland Regional Policy Statement Proposed Change 6: Giving Effect to the Regional Growth Concept and Integrating land Use and Transport

and whether minimum parking rates should also remain in combination with, or instead of the maximum rates.

Table 5: Options For Minimums and Maximums

Option ID	Description
1	Apply no parking standards and assess each application using a fully performance based approach assessed against outcomes rather than rules
2	Apply a blanket maximum across the whole region, with no minimums
3	Apply a blanket maximum across the whole region, with minimums set at a percentage of maximums
4	Apply a blanket maximum across the whole region, with minimums set at a percentage of maximums, and apply no minimums to urban centres and corridors
5	Apply a blanket maximum across the whole region, with minimums set at a percentage of maximums and apply reduced minimums to urban centres and corridors
6	Apply maximums and no minimums to urban centres and corridors only and retain minimums for the rest of the region
7	Apply maximums and reduced minimums to urban centres and corridors only and retain minimums for the rest of the region
8	Status Quo. Retain current minimum rates (with the exception of existing plan changes) and continue with individual plan changes to implement changes to the existing parking rates as and when required

6.1.3 Options Analysis

It is noted that as part of the brief for this project, it is required that the recommendations made need to be justified. Therefore, to determine the most suitable options to be considered further an options analysis has been carried out. This has included an assessment of options outlined in Table 5 in terms of their ability to meet the required aims and objectives outlined in Section 5. The results of this analysis are summarised in Table 6.

Table 6: Minimum/Maximums Options Analysis

Options	Pros	Cons
1. No parking standards	Each activity will be assessed independently in its own context so less likely to result in a parking oversupply as a result of oversimplified rates	Requires every development with parking to apply for a resource consent which will increase costs of development
	Does not encourage development outside of town centres due to different parking rates	In reality it is likely that applications will still be assessed against historic industry standard rates and change may be limited
	Allows Council to maintain control over parking supply as all developments will require a resource consent	May not sufficiently encourage development in town centres over other areas
	Allows applications to be assessed against outcomes as opposed to rules	There may be an increase in applications for resource consent as a result of parking which may require additional Council resource
	Could result in increased flexibility for developers (though this will be dependent on Council's assessment of applications)	
	The risk of developments being built with limited parking is reduced with this option	
2. Blanket maximum with no minimums	Simple approach and easy to understand	May not sufficiently encourage development in town centres over other areas
	Does not encourage development outside of town centres due to different parking rates	Some developments may be built with insufficient parking resulting in negative effects to the surrounding road network which need to be managed by Auckland Council (AC) or Auckland Transport (AT)
	Enables AC to reduce the overall parking supply in the region and manage future supply as a travel demand management tool	May result in an increase in applications for additional parking, particularly in rural areas
	Allows the market to determine the most appropriate level of parking (up to the maximum rate permitted) and encourages more economic use of land	May require excessive AC or AT resource as parking management measures may be required throughout the region as opposed to town centres only

Table 6: Minimum/Maximums Options Analysis

Options	Pros	Cons
	Removes the potential for developers to include an oversupply of parking merely to comply with parking provision rules	No precedent for this approach in such a large urban area (to our knowledge)
	Can be a travel demand management tool by Promoting sustainable transport as it controls the over provision of parking	Does not recognise the different characteristics of urban, suburban and rural areas
	Allows increased flexibility for developers which does not restrict good urban design	
	Sends a clear message that the focus of parking provision in the Auckland region has changed with applicants having to justify an increase in parking rather than a parking shortfall	
3. Blanket maximum, minimums set at a % of maximums	Same pros as Option 1 with the exception of increased flexibility due to the retention of some form of minimum parking rates	Same cons as Option 1 but risk of overspill effects reduced due to the retention of minimum rates
	Reduced risk of negative effects of parking overspill due to the requirement of some onsite parking for most activities	Reduced minimums may still result in a barrier to intensification
		Reduced minimums may still result in an oversupply of parking in some areas
4. Option 2 but with no minimum rates in urban centres and corridors	Same pros as Option 2	Same cons as Option 1 but risk of overspill effects outside of town centres reduced due to the retention of minimum rates
	Allows flexibility to provide significantly reduced parking in predetermined areas where intensification is desirable and alternative transport options are	Slightly more complicated to administer than Options 1 and 2 as town centres and corridors have to be identified and justification for why some town centres are included and not others will be required

Table 6: Minimum/Maximums Options Analysis

Options	Pros	Cons
	available	
	Restricts potential overspill effects to key areas allowing AC and AT to concentrate management resource in these areas	Will require resource from AC and AT to manage parking overspill effects in town centres (and possibly outside of town centres also, although to a lesser extent than Option 1)
4. Option 2 with reduced minimums in urban centres and corridors	Same pros as Option 2	Same cons as Option 2
	Provides slightly more flexibility in town centre locations, thereby encouraging density and use of alternative transport modes where this is desirable	
5. Apply maximums and no minimums to urban centres and corridors. Retain minimums for the rest of the region	Encourages density in areas where intensification is desirable	May encourage development outside of town centres (if additional measures are not put in place) and therefore not result in increased intensification where it is desirable
	Supports the use of public transport and other sustainable forms of transport where these options are generally realistic and available	Slightly more complicated to administer than Options 1 and 2 as town centres and corridors have to be identified and justification for why some town centres are included and not others will be required
	Restricts the potential over spill effects to town centre areas so AC and AT resource can be concentrated	Will require additional resource from AC an AT to manage parking overspill effects as some developments may not provide sufficient parking to cater for demand (through potentially less than Options 1-4)
	Allows the market to determine the most appropriate level of parking (up to the maximum rate permitted) and encourages more economic use of land where it is most important	May still result in an oversupply of parking outside of town centres
	Allows developers the flexibility of providing no parking in appropriate areas	
	May reduce the number of consent applications for additional parking over permitted levels and this AC	

Table 6: Minimum/Maximums Options Analysis

Options	Pros	Cons
	administrative resource (when compared to Options 1-4)	
	Avoids placing maximum rules on developments where they are not necessary (for example residential uses outside of town centres)	
	This approach is set out in the existing Auckland Strategic documents (ARLTS , RPS and Draft Auckland Plan)	
6. Option 5 but retain reduced minimums in urban centres and corridors	Same pros as Option 5 without the flexibility of being able to provide no parking	Same cons as option 5 but slightly reduced risk of having to manage overspill car parking
	Risk of developments not providing sufficient parking to meet demand is slightly reduced through the retention of some form of minimum parking requirement	Level of minimum parking requirements still have to be justified (rather than allowing the market to determine)
	There is precedence for this approach through existing plan changes (for example Sylvia Park, Smales Farm and Newmarket) and overseas (for example Sydney and Brisbane)	Removes the option of providing no parking which may be desirable in certain areas and can discourage density
7. Status Quo	Allows parking rules to be assessed individually within the context of each area and implemented following these assessments	Relies on the plan change process to implement any future changes to parking standards
		Does not meet the aims and objectives outlined in the existing Auckland strategic documents (ARLTS , RPS and Draft Auckland Plan) including encouraging intensification in town centres, improving housing affordability, encouraging efficient use of land and

Table 6: Minimum/Maximums Options Analysis

Options	Pros	Cons
		encouraging use of sustainable transport modes
		Will result in an oversupply of parking

6.1.3.1 Discussion: Parking Maximums

Option 1 and Option 8 were removed from the analysis at an early stage. Option 1, including no standards and assessing every development individually was considered to require too much resource, both from developers (in the form of an increased requirement for resource consent) and Council (in the form of assessing the applications). In addition, in reality it is likely that Council officers will continue to use historic industry standard parking provision rates when assessing the applications, resulting in the possibility of minimal change from the status quo. Option 8, retaining the status quo, was also discounted as it was determined that the outcome would not meet the aims and objectives of the project. As a result it was decided that our recommendation would include the implementation of maximum parking rates, at least in some form, in the Unitary Plan.

The next major difference between the options is focussed around whether maximum parking rates should be applied to the entire Auckland region (as outlined in Options 2 to 5) or whether they should apply to urban centres and corridors only (as outlined in Options 6 and 7). As discussed previously, the approach recommended by the existing Auckland strategic documents has been to apply maximum parking rates to particular urban centres and corridors with good access to public transport only. There is precedence for this approach through existing plan changes (for example Newmarket, Smales Farm and Sylvia Park) and this approach is used in overseas cities (for example Brisbane).

However, the research has revealed that there is some concern around introducing maximum parking rates in some locations and not others as it may discourage development in the areas where intensification is desired. Specifically the examples of office developments have been described where the level of parking supplied seems to impact on the attractiveness of the land use to tenants. Therefore if this approach was taken forward then strong land use policies would need to be in place to avoid out of centre office development and/or additional complementary measures would be required. For example it may be beneficial to apply a blanket maximum over the entire Auckland region for office and commercial land uses to complement the zoning policies.

The advantage of providing a blanket maximum for all activities across the entire region (as opposed to urban centres and corridors only) is that it is a simple approach which sends a clear message that there is a change of policy with regard to parking provision in the Auckland region. The emphasis of assessing developments is turned around with it being placed on justifying additional parking (over the maximum) as opposed to the present philosophy of justifying a parking shortfall (less than the minimum). In turn, this allows developers to provide parking according to market requirements (up to the maximum allowed), thus encouraging efficient use of land and more sustainable travel choices (where appropriate). The introduction of the blanket parking maximum rates also removes the potential for parking rules to actively discourage development in urban centres and corridors as the maximum parking rate will apply across the entire region.

However, Auckland encompasses a wide and varied region and there are many areas where private vehicle travel is the only available form of transport and where the aims and objectives of implementing maximum parking rates (encouraging density, improving development costs and encouraging sustainable forms of transport) are not practicable. There is therefore some concern that implementing maximum parking rates throughout the region will result in an increase in applications

to vary the parking rules for land use activities for which Council has no interest in restricting parking supply (for example parking provision for land uses such as residential in rural areas). This may result in an unintended increase in resource consent applications and therefore have resource consequences for Auckland Council and result in additional costs to applicants. If a blanket maximum was put in place then it is likely that there would be a need to exclude some land uses from this blanket maximum.

The analysis has revealed that there are advantages and disadvantages to both approaches to implementing maximum parking rates (ie either the blanket approach or in urban centres and corridors only) and either approach is likely to result in the need for additional measures or exceptions to the rule. Whilst we consider that the implementation of a blanket parking maximum rate across the entire region is a simpler approach we are aware that the objectives of maximum parking rates do not apply to a large section of the Auckland region. As a result the costs of any unintended consequences of this approach (for example an increase in resource consent applications) cannot be justified.

Maximum parking rates should be set at similar rates as the current maximum rates included in Plan Change 14 and 15 for the Hobsonville and Massey North town centres. Very similar rates are also used in Plan Change 196 for Newmarket. We consider these rates to be appropriate as they generally aim to permit a supply of less than 85 % of peak parking demand. There is also precedence for their application in urban centres in Auckland. However, we recommend two changes. We consider commercial office activities should be subject to a maximum of one space per 30 m^2 on the ground floor as well as above ground floors. We acknowledge this rate is higher than the existing rate of one space per 35 m^2 but due to the reduction in space per employee ratios monitored in Auckland, we consider a maximum of one space per 30 m^2 is appropriate. This is discussed further in Section 8.2.2.2 of this report. We also consider that consideration should be given to a special requirement for educational facilities in urban centres and corridors as this land use offers significant potential for the use of sustainable transport modes. We therefore consider that all educational facilities in urban centres and corridors should be subject to a Travel Plan as a condition of consent.

Table 7: Recommended Maximum Parking Rates

Land Use	Maximum Parking Rate
Residential	1 per one bedroom dwelling
	2 per dwelling with two bedrooms or more
Commercial office activities	1 per 30 m^2
Retail and Other	1 per 25 m^2 ground and mezzanine floors
	1 per 35 m^2 above ground floors
Educational Facilities	Require an individual assessment as part of a Travel Plan

It is noted that for retail and other land uses a slightly higher parking provision is allowed for ground floor and mezzanine levels. This is in recognition of the fact that activities which are accessed by the public (and therefore may require visitor parking) tend to be located on ground and mezzanine floor levels. There are arguments to suggest that further vertical differentiation of car parking requirements can be achieved, through reducing requirements further for second floors and above. However, it is

considered this is difficult to justify without further evidence and may result in rules which are overly complicated.

As part of the CPMP process, maximum parking levels below these permitted rates may be justified. However a plan change would then be required to adjust the maximum parking rate applying through the Unitary Plan.

6.1.3.2 Recommendation: Parking Maximums

For these reasons we recommend that the maximum parking rates should be applied in urban centres and corridors only as outlined in the Auckland Regional Parking Strategy. However, we are concerned that land use policies alone will not be sufficient to avoid out of centre development (particularly with regard to office and retail activities) and that there is potential that the change in parking rules may actively encourage this type of development outside of urban centres and corridors. For this reason we recommend that a blanket maximum rate (the same as in urban centres and corridors) be applied to office and commercial activities throughout the entire region. Whilst it is acknowledged that there may be some office activities which may require parking spaces over the maximum rate (for example if they have pool cars), it is considered they can apply to supply additional parking as a discretionary activity.

6.1.3.3 Discussion: Parking Minimums

The next major difference in the options identified is whether minimum parking rates should be applied in conjunction with the maximum parking rates. If it is assumed that maximum parking rates will be applied to urban centres and corridors only (with the exception of office activities) as recommended in Section 6.1.3.2, then minimum parking rates will remain for the rest of the region. The level of these minimum parking rates is discussed in Section 8.2.2.

However, there is still the question of whether minimum rates should also be applied in urban centres and corridors (Option 6 or Option 7). Theoretically, the idea of implementing minimum parking standards in conjunction with maximum parking standards is to some extent nonsensical. Many of the benefits of implementing maximum parking standards (encouraging density, improving affordability and encouraging the use of public transport) are compromised through the retention of minimum rates. In particular the potential benefit of increased flexibility and the development of small sites where parking is difficult to provide is removed. Examples show that where maximum parking rates have been implemented in central city locations (For example Auckland, Wellington and Sydney), minimum rates have not been retained.

However, when considering urban centres and corridors outside of CBD locations, the situation becomes less clear. For example most of Auckland Plan Changes which have included the implementation of maximum parking rates have also retained (albeit reduced) minimum rates, thus providing a range in which the level of parking can be selected. The reason for this is that while it is recognised that a shift to alternative transport modes is desirable in the short to medium term, private vehicle use is likely to remain the dominant mode of transport. Parking shortfalls have the potential to result in parking spilling over to adjoining residential neighbourhoods which could give rise to

unacceptable amenity effects[43]. Therefore these Plan Changes have compromised on the full benefits of implementing maximum parking requirements to reduce some of the risk associated with potential parking overspill effects on the road network.

Other plan changes which have also taken the minimum and maximum approach have tried to retain the benefit of increased flexibility through retaining minimum parking rates but excluding developments with floor areas less than 1,000 m^2 (for example New Lynn and Newmarket). Other options include setting a floor area ratio for parking versus useable space which removes the issue of excessive minimum parking rules making small sites difficult to develop.

Looking to Australia again, but using examples outside of CBD areas, this issue is dealt with differently in different areas, for example North Sydney includes maximum parking rates with no minimum rates but also includes a statement that "parking levels significantly below the maximum rates are unlikely to be accepted due to potential overspill effects". Leichart, also in Sydney, uses both minimum and maximum rates in a similar approach to the existing plan changes in the Auckland region. The approach by Brisbane Council is different again, where minimum rates apply to all activities, with the exception of centres, where maximum rates apply within close proximity to public transport. Developments located within centres, but located further away from public transport, have reduced minimum parking rates from areas located outside of centres.

The research of best practice literature has revealed that removing minimum parking standards requires additional complementary strategies to be implemented, including strategies to manage existing parking more efficiently, reduce demand and other supporting strategies to manage the potential negative effects of parking overspill onto the road network. It has been revealed that many of these strategies are context specific and as outlined in the Auckland Regional Parking Strategy, the development of Comprehensive Parking Management Plans (CPMPs) is required to develop the most appropriate strategies for each urban centre and corridor. As discussed previously, this has a resource implication for Auckland Transport, both in the preparation of the CPMPs and the ongoing costs of the resulting management techniques. It is also noted that the Unitary Plan may become operative before CPMPs have been prepared for all urban centres and corridors.

While considering these risks it is important to understand that the removal of minimum parking rates will not result in all developers in urban centres and corridors providing no parking. Private developers will want their development to be attractive to the market and therefore if a particular land use is likely to generate a demand for parking, developers are likely to provide as much parking as they are entitled to under the Unitary Plan. However, the fact of the matter is that the removal of all minimum parking standards in urban centres and corridors will undoubtedly increase the risk of negative effects of parking overspill onto the road network and effectively transfers the cost of managing these effects from the developer to Auckland Transport. Negative effects of parking overspill include illegal parking, traffic congestion and loss of on street visitor parking for local residents. Retaining some level of minimum rates (as with existing plan changes) does reduce this risk and spreads the cost. However, this must be balanced against the fact that if minimum parking standards are retained in any form, the potential benefits of implementing the maximum rates are compromised.

[43] Auckland City Council, 2010, Sylvia Park Plan Change 235 to the Auckland City Council District Plan

There is an argument that residential land uses, in particular, should retain minimum parking standards, even in urban centres and corridors. The reason for this is that many residents may choose to live in an urban centre and commute to work using public transport, but they may still wish to own a car for recreational purposes. In addition to this, not providing visitor parking may result in negative parking overspill effects on the surrounding streets. As a result of this residential units which do not provide any parking may be seen as unattractive, particularly for families. This works against the aim of encouraging people of mixed ages and family structures to live in centres and corridors and as a result it may be beneficial to retain minimum parking rates for residential land uses. However, if minimum parking rates are retained then the advantages of increased flexibility and reduced housing costs may be compromised as developers will still have to provide a set amount of parking.. In theory developers will provide what is attractive to the market, although it is acknowledged that to ensure development of successful and attractive town centres, additional regulation from Council may be required (at least in the first instance). It is considered that the parking rules will need to be closely aligned with land use rules around the desirable mix of residential types in town centres and further discussions with the team developing the residential land uses rules for the Unitary plan is required to determine the most appropriate approach. If minimum parking rates are to be retained for residential units, it is recommended that consideration be given to requiring the parking to be unbundled from the unit titles. This is discussed further in Section 7.

6.1.3.4 Recommendation: Parking Minimums

Our recommendation is that where maximum parking rates are applied, minimum rates (at least for standard car parking spaces) should be removed. Our justification for this is that by retaining minimum parking rates the aims and objectives outlined in Section 5 are unlikely to be fully achieved. However, to manage some of the potential risks to Auckland Transport of having to manage significant parking overspill effects on the surrounding road network, we also recommend the following:

- The removal of minimum parking rates should only apply to those urban centres and corridors which have good access to public transport. Those urban centres and corridors identified in the draft Auckland Plan which do not have access to public transport should retain a minimum parking standard (set at 75 % of the maximum) until such time as the removal of the minimum rate can be justified through the provision of alternative transport options. The figure of 75 % of the maximum rate has been used as it is consistent with existing Plan Changes (for example Newmarket and Sylvia Park) and represents providing for approximately 63 % of peak parking demand (75 % of 85 %). We recommend that the minimum parking rates are based on a percentage of the maximum rates (as opposed to the generic rates used for outside of urban centres and corridors) to simplify the process and ensure all growth centres and corridors have similar parking supply rates. The classification of urban centres and corridors with regard to the available provision of public transport is discussed in Section 6.2
- Auckland Transport should prioritise the development of CPMPs to ensure these are completed in a timely manner so that the parking management measures can be implemented as soon as possible
- Complementary measures aimed at reducing parking demand and improving the efficiency of the existing parking supply which can be implemented by the private sector should be required and/or incentivised through the resource consent process. This is discussed further in Section 7

- Walking and cycling studies should be undertaken for all urban centres and corridors with the aim of identifying improvements in and around town centres which will encourage walking and cycling and reduce the use of private vehicles for local trips.

It is acknowledged that there may be instances where it is difficult to achieve the minimum parking requirements (even at the lower level of 75 % of the maximum), particularly on small urban sites. It is therefore recommended that the provision of parking spaces below the minimum levels be included as a discretionary activity in the Unitary Plan and the assessment criteria include criteria around the provision of parking on small sites.

In addition we recommend that further consideration be given to the retention of some form of minimum parking rate for residential land uses in urban centres and corridors. The requirement for a minimum rate should be discussed with the Council team developing residential land use rules aimed at encouraging a mix of residential types in urban centres and corridors. If minimum parking rates are to be retained for residential units, it is recommended that consideration be given to requiring the parking to be unbundled from the unit titles.

6.1.3.5 Visitor Parking

The RLTS and RPS clearly states that short stay parking should be prioritised over long stay parking and it is considered this is a good approach to effectively managing parking supply and decreasing the use of private vehicles during peak periods. It is also recognised that the provision of short stay parking is important to the economy of urban centres.

Consideration has been given to requiring parking for visitors despite maximum parking rates and/or as part of minimum parking rates. Overall, it is concluded that generally if the number of parking spaces provided complies with the parking provision rates included in the Unitary Plan then it is difficult to require (and therefore monitor) how the applicant allocates these spaces in terms of use for long and short stay parking. In addition, it is anticipated that a short stay or visitor parking supply will be provided in the form of public parking in the urban centres as part of a CPMP. As a result specifying a minimum number of visitor spaces is not recommended for urban centres and corridors. However, it is noted that if resource consent is required as a result of an applicant wishing to provide more or less parking than that permitted, then the allocation of spaces to short term use only should be considered as a condition of consent.

6.2 Public Transport Assessment

The analysis above has identified that if minimum parking requirements are going to be removed from urban centres and corridors there is a to need to carry out some form of public transport availability assessment to ensure that alternative transport options are available.

Three options have been identified for this assessment including using the descriptions in the Draft Auckland Plan, undertaking a public transport accessibility index analysis (similar to that used in the central area of Sydney) or using the existing classification included in the Auckland Passenger

Transport Network Plan[44] and the Auckland Regional Public Transport Plan[45]. An assessment of these three options is provided in the following sections.

6.2.1 Draft Auckland Plan Classification

The list of urban centres and corridors identified in the draft Auckland Plan is provided in Appendix G. The Plan defines centres and corridors as:

- Centres: Localities identified as urban centres in Chapter 8 (of the Plan) which include the city centre and fringe, metropolitan centres, town centres and local centres. Centres are typically higher density, compact mixed use urban environments with high quality public transport links and provide a wide range of community, recreational, social and other activities
- Rural Satellite Centres: Urban settlements in rural areas of varying sizes but are significant in terms of servicing a wide rural catchment. They provide a pool of residential and employment growth for the wider local area. These centres are the focus of future growth in rural areas
- Corridors: Strategic and arterial road, bus and rail alignments, and land located adjacent to these corridors, which generally link Auckland's centres. They include but are not limited to urban growth corridors identified in Chapter 8 (of the Plan)[46].

As outlined in Section 3.3.4 of this report, the Plan classifies the urban centres into the city centre (including the waterfront), city fringe centres, metropolitan centres, rural satellite centres, town centres and local centres. The transport attributes of each category (taken from Table 8.3 of the Auckland Plan) are provided in Table 8. Transport attributes for rural satellite centres are not provided in the Auckland Plan but it is assumed that the public transport options will be minimal.

[44] Auckland Regional Transport Authority, 2006, Passenger Transport Network Plan 2006-2016
[45] Auckland Regional Transport Authority, 2010, Auckland Regional Public Transport Plan
[46] Auckland Council, 2011, Draft Auckland Plan, p249 Glossary

Table 8: Transport Attributes of Urban Centres

Centre Classification	Transport Attributes
City Fringe centres	Supports the City centre Medium trip generation mainly as an origin Has the provision for high frequency public transport
Metropolitan Centres	Major hub at a sub regional scale High trip generation given its destination function Generally has the provision of high frequency public transport
Town Centres	Local catchment centre Medium to low trip generation, mainly as an origin Generally has the provision for high frequency public transport
Local Centres	Local catchment centre Low trip generation, mainly as an origin Low frequency public transport
Rural Satellite Centres	N/A

From the descriptions provided in Table 8 it would appear that high frequency public transport should be available in city fringe centres, metropolitan centres and town centres but not necessarily in local centres. However, the descriptions are relatively vague and we consider further evidence of a good public transport service is required to justify the removal of minimum parking rates from these centres. In fact, on examining the list of centres and corridors it becomes apparent the list is very varied. The centres and corridors identified have different levels of access to public transport, anticipate growth of different types of land uses (for example some centres are predominantly origin based rather than destination based) and being at different stages of development, with some centres already very developed (such as Newmarket) where as others being identified for intensification in the long term (such as Drury).

Overall, we consider that the classifications used in the Draft Auckland Plan are not suitable to be used as justification for the removal of minimum parking rates to all urban centres and corridors.

6.2.2 Public Transport Accessibility Indices

Public Transport Accessibility Indices are used by a number of local authorities throughout the United Kingdom, the United States and Australia. There are a number of different indices available but the most commonly used and well known are Public Transport Accessibility Index (PTALs) which were developed by the London Borough of Hammersmith and Fulham in 1992 and have since been adopted by Transport for London[47].

The PTAL measure reflects walking time from a point of interest to the public transport access points, the reliability of the service nodes available, the number of services available within the catchment

[47] Transport For London, 2003, PTAL Methodology

and the average waiting time. PTALs can be mapped across whole areas or can be used to assess individual developments. They are used by planning authorities to rate PT availability and are a major consideration when determining permitted land use and parking requirements in London. PTALs have also been used in Australia as part of measurements to assess PT accessibility in the Sydney central area[48] and in New Zealand PTALs have been modelled for Christchurch City Council[49].

Whilst PTALs appear to be the most widely used measurement a number of professionals in the United Kingdom have stated that the tool is too simplistic as it does not take into account where the service is going or how long it takes to get there. It is also principally an origin based measurement and so assumes the development is at the origin end of the trip rather than the destination[50]. Lastly it is noted that where PTALs have been used to assess a whole local authority area they have in the main been for central CBDs, such as Sydney and Christchurch. Given that the index was developed for use in London, which is a highly populated and dense centre, this would appear to be an appropriate use of the tool. The city centre is not within the scope of this brief. However, we consider that developing PTALs for the city fringe areas would be appropriate and there may be merits in using the index as part of the CPMP process for larger urban centres.

However, we consider the application of PTALs to the entire Auckland region may be of questionable benefit. If some form of public transport accessibility index was to be used further work on the most appropriate form of the index would be required. Overall, we consider that the time and cost required to achieve a useful result would be prohibitive for this stage in the development of the Unitary Plan.

6.2.3 RTN and QTN

The Auckland Passenger Transport Network Plan[44] classifies the Auckland public transport network using four classifications, as outlined in Table 9. This table also outlines the minimum frequency envisaged on these routes by 2016.

[48] City Of Sydney, 2005, Accessibility and rates of Car Parking Provision Final Report
[49] Abley And Williams, 2008, Public Transport Accessibility Index, IPENZ Transportation Conference 2010
[50] Gent and Simons, 2005, Advances in Public Transport Accessibility Assessments for Development Control – a Proposed Methodology

Table 9: Public Transport Network Classifications

Classification	Description	Frequency of Service
Rapid Transit Network (RTN)	High quality, fast, high frequency service in its own right of way where it is unaffected by traffic congestion. The RTN will connect the major growth centres to the CBD. It will include the Northern Busway and the western, southern and Isthmus rail corridors	5-15 minutes during peak periods
Quality Transit Network (QTN)	Fast, high frequency, and high quality transit services operating between key centres and over major corridors, providing extensive transit priority. In conjunction with the RTN it will facilitate high speed reliable access around the region through the integration of radial and cross-town services	10-15 minutes during peak periods
Local Connector Services (LCN)	Bus, ferry and train services that provide access to local centres and connect with the RTN and/or the QTN. Priority measures will be provided at key congestion points to improve service reliability	20-30 minutes during peak periods
Targeted Services	Services that provide mobility for groups whose needs are not met by the regular passenger transport network. They include the Total Mobility service for people with disabilities, demand-responsive services in areas of low demand, fare concession schemes and school bus services	N/A

The Auckland Passenger Transport Network Plan indicates that any urban centre or corridor located along the RTN has already (or will have in the very short term) a high quality, fast, frequent and reliable service providing access to the Auckland CBD and other major growth centres. Examples include the rail network and the Northern Busway. Likewise centres or corridor located on the QTN network will have a similar service and will have easy access to the Auckland CBD and major growth centres either directly or through providing connections to the RTN. The QTN predominantly encompasses the main bus network and although it relies on the road network, extensive bus priority measures are in place along these routes. The LCN and Targeted Services routes provide less frequent services.

A map of the RTN and QTN networks as planned for 2016 is illustrated in Figure 1. The Auckland Regional Public Transport Plan identifies a number of planned long term extensions of the RTN network which are envisaged to be in place by 2041 and are shown in Figure 2. It is noted that these maps should be used with caution as the future QTN routes are currently under review as part of the Public Transport Network Plan. Auckland Council and Auckland Transport will need to complete further work to confirm which additional centres are expected to be on the RTN and QTN network by 2022.

Figure 1: RTN and QTN Network (2016)

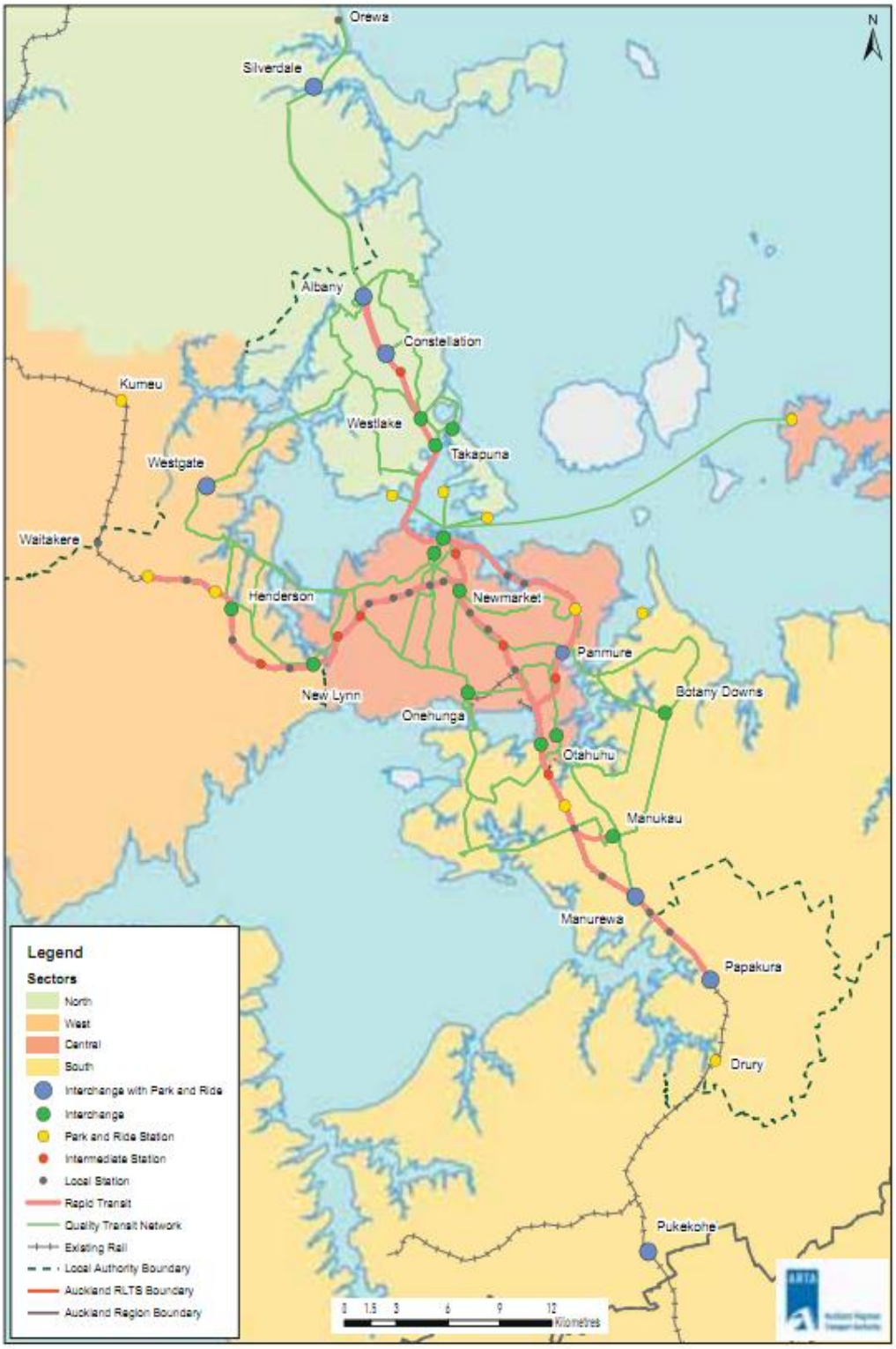
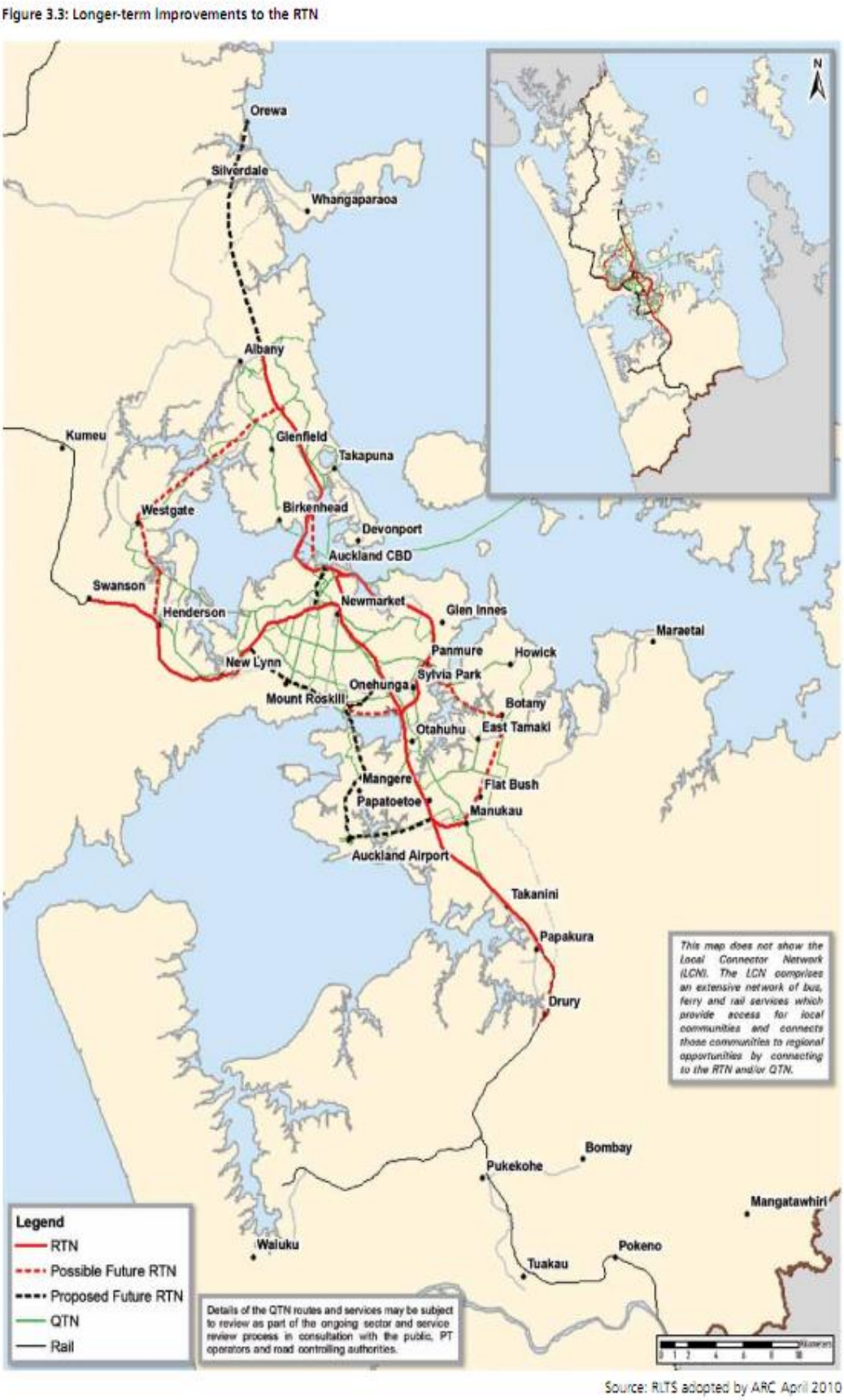


Figure 2: Long Term Extensions to the RTN Network



Based on the information included in the Auckland Passenger Transport Network Plan and the Auckland Regional Public Transport Plan, we consider that if an urban centre or corridor is located on the RTN or QTN (or is planned to be in the next ten years) then it can be assumed that it has sufficient access to public transport to offer an alternative transport choice and as a result the removal of minimum parking rates can be justified.

However, where the RTN is not currently in place and is unlikely to be implemented within the next ten years, we consider minimum parking rates should be retained at a rate of 75 % of the maximum rates, until the RTN or QTN infrastructure are in place. The parking provision rates can then be altered through a Plan Change process or when the Unitary Plan is reviewed in the future. The rate of 75 % has been selected as this is consistent with existing plan changes (such as Newmarket and Sylvia Park).

The justification for removing minimum parking rates for centre and corridors which are currently not on a RTN or QTN route but for which plans are in place to change this in the next ten years is that the time taken for the Unitray Plan to become operative may be as much as ten years. As a result it is considered important that the proposed parking provision rules are forward thinking. Whilst it is acknowledged there is some risk of negative parking overspill effects occurring before the Public Transport services are improved, it is generally considered that these risks should be given less weight than the risk of undesirable low density development in these areas, which will be difficult to change once complete.

It is acknowledged that urban corridors are slightly different to urban centres, in that the majority of corridors are on a single public transport route (usually to the central city) as opposed to offering immediate accessibility to the whole public transport network. However, it is noted that in general the Auckland public transport system is radial, and many of the urban centres are also only located on a single public transport route. In general, it is considered that the development of the RTN and QTN will result in quick access to a transfer point which will allow access to the wider transport network and as a result being located in close proximity to a public transport stop on a corridor will provide a similar level of public transport accessibility as being located in a smaller growth centre.

A full list of which urban centres and corridors are located on the RTN and QTN is provided in Appendix G. Those identified as being on an RTN or QTN route by 2016 will therefore as such automatically have no minimum parking rates. Those centres and corridors which have planned RTN and QTN routes by 2041 will need to be assessed with regard to the likely implementation date for the network changes. If the public transport network is planned for development after 2022, we recommend that a minimum parking rate is maintained at 75 % of the maximum rate to reduce the risk of excessive Auckland Transport resource requirements to manage overspill parking effects on the surrounding road network in these locations.

6.2.4 Urban Centre and Corridor Boundaries

In addition to selecting the urban centres for which maximum and/or minimum parking standards should be applied, the boundary of where the different rules apply needs to be considered.

The aim of parking supply rules is to encourage density in urban centres so the parking rules need to be accommodated in the areas where intensification is envisaged, the extent of which will vary from

centre to centre. However because the justification for the removal of minimum parking rates from urban centres and corridors is based on the centre having good access to public transport, it is considered that the boundaries should be based on distance from the public transport stop or interchange. It is acknowledged that the extent to which pedestrians walk is not solely based on distance and that pedestrian amenity and the quality of the environment are also important factors. We therefore recommend that all urban centres and corridors prioritise creating attractive walking (and cycling environments). This is discussed further in Section 7.1.2.

Ideally, the catchment area for the proposed parking rule would be determined based on an analysis of each growth centre and corridor and a map included in the Unitary Plan. However, due to the number of centres this is considered to be unrealistic at this stage and it is envisaged this work will be completed as part of the CPMP process.

Until the completion of CPMPs, it is recommended that guidance on an appropriate catchment area for the maximum parking provision rule is included in the Unitary Plan, which could also include a map illustrating the generic catchment area around each centre. Traditionally a distance of around 800 m has been used to generate walking catchments[51]. As part of the PTAL measurement discussed in Section 6.2.2 a bus stop is considered to be accessible if it is located within 640 m of the place of interest and a train station is considered accessible if it is located within 960 m of the origin (measured along the road network)[47]. It is generally accepted that people are willing to walk further to a train station than a bus stop.

Within the context of the public transport network in Auckland, it is reasonable to assume that people may be willing to walk further to access the RTN network than the QTN network as it provides a slightly superior service (in terms of priority and frequency) and is likely to have a higher level of facilities at the transport stop or interchange. Recent research completed in Papatoetoe town centre and rail station (which is located on the RTN network) and rail station in Auckland[52] suggests that up to 85 % of pedestrians walk over 2 km to access the rail station and 1.7 km to access the commercial town centre. Although the sample used in this research is small, this indicates that the distance people are prepared to walk to access public transport is longer than the distances used in the PTAL measurements.

Discussions with Council officers on the operation of Auckland City Council Plan Change 196 for Newmarket also revealed that the core parking area, in which minimum parking rules do not apply, is currently too small and it was felt that the same rule could be applied to sites further out. Currently the core parking area includes the Broadway, Nuffield Street and the eastern end of Khyber Pass Road only.

It is recommended that some further research is undertaken on existing urban centres in Auckland to determine the extent of their likely walkable 'catchment area'. This work could be undertaken in a similar manner to the ARTA study on Papatoetoe[52]. However, considering the information available, we recommend that the change in parking rules applies to the following:

[51] For example P31 of the Auckland Regional Land Transport Strategy (2010) states that a target is to increase the percentage of people who live within 800 m of an RTN stop
[52] Beca, 2010, ARTA Pedestrian Studies – Analysis and Findings

- Sites located within an urban centre or corridor within a distance of 1 km (measured along the road or pedestrian network) from an RTN stop
- Sites located within an urban centre or corridor within a distance of 800 m (measured along the road or pedestrian network) from a QTN stop.

Where a corridor has been identified these distances will apply to all public transport stops located along the corridor.

Where a centre is not yet located on the QTN or RTN it is recommended that the catchment area be centred around the central public transport stop. Some guidance from Auckland Transport may be required in this regard.

We acknowledge that applying a generic distance around each town centre may not be appropriate in all instances and may result in circumstances where one side of the road is subject to minimum requirements and the other is not. We therefore recommend that this boundary of the urban centre or corridor be reviewed as part of the CPMP process and a map be drawn up. If a CPMP has not yet been prepared we recommend that the Unitary Plan include a rule that states that if one side of the road is within the distance specified then the other side should also apply.

6.3 Further Analysis on Centres and Corridors

In addition to identifying whether centres and corridors have good access to public transport we also consider there may be some centres where further consideration is required. In particular we are of the view that additional work is required to consider appropriate parking provision rules for local centres, city fringe centres and rural satellite centres.

6.3.1 Local Centres

Local centres are defined in the Draft Auckland Plan as centres focused on walkable catchments supported by public transport services. They have variable capacity for accommodating new residential and business development, but to a lesser extent than town centres, due to their individual and accessibility constraints. Local centres make up the majority of the centres identified for growth and include areas such as Albany Village, Belmont, Glendene, Gulf Harbour, Meadowbank, Mt Roskill, Sandringham, Torbay and Valley Road. Under the proposed approach, if the local centre is located on the QTN or RTN (or are planned to be on the network by 2022) the centre will be subject to maximum parking requirements and minimum parking requirements will be removed (with the possible exception of residential land uses). If the planned Public Transport network improvements are not planned for implementation within the next ten years then the centre will be subject to maximum parking rates but minimum parking rates (set at 75 % of maximum rates) will also be retained.

Local centres are smaller and have been given lower priority than metropolitan centres and town centres and as a result it may be years before these centres have CPMPs prepared for them. In addition, due to their smaller size, these centres are likely to have a lower level of public transport service than the larger centres. There is therefore an increased risk that the removal of minimum parking requirements will result in negative on street parking effects, when compared to metropolitan or town centres. In contrast, there is also a risk that by retaining the minimum parking provisions,

these centres will continue to develop as low density centres, thus compromising the aims and objectives of the Auckland Plan. There is also a danger that by removing maximum parking rates from these centres, they may attract development which is desirable in larger centres.

In general it is considered that all local centres should be subject to maximum parking rates as per the town centres and metropolitan centres. However, in recognition of the potential risks associated with the removal of minimum parking rates, it is recommended that further work be undertaken on the local centres. This could be in the form of a high level assessment of all of the Local centres for their appropriateness for the removal; of minimum parking requirements. A list of criteria should be developed based around existing and planned land use, land ownership, public transport accessibility and other relevant issues. Each Local centre can then be assessed against the agreed criteria. Although the information will not be to the detail anticipated in the CPMP, the high level information will help determine whether minimum parking rules should be removed at this stage or whether they should be retained subject to the completion of a CPMP.

6.3.2 Central City Fringe Centres

The central city fringe centres include Ponsonby, Parnell, Three Lamps, Newton and Grafton. Discussions with Council officers revealed that they are receiving a number of applications for commercial activities in these areas with substantial parking supplies. Under the proposed approach for the removal of minimum parking requirements many of these centres would have this requirement removed and a maximum parking rate applied (or be subject to the blanket maximum for commercial activities). However, even under this approach, the permitted parking supply will still be significantly more than that permitted within the central area. These urban centres generally have very good access to public transport and we consider it may be appropriate to investigate the possibility of extending the maximum parking requirement included in the central area to some of these urban fringe centres, particularly for commercial activities.

6.3.3 Rural Satellite Centres

Rural satellite centres are defined in the Auckland Plan as urban settlements in rural areas of varying sizes which are significant in terms of servicing a wide rural catchment. They provide a pool of residential and employment growth for the wider local area. These centres are the focus of future growth in rural areas and include Helensville, Kumeu Huapai, Pukekohe, Warkworth, Wellsford and Waiuku. None of these centres are located on the existing or proposed RTN or QTN network so under the proposed approach these centres would be subject to maximum and minimum parking rules as per the other growth centres in the region. It is questionable whether the provision of maximum parking rates in rural satellite settlements is valid as the vast majority of trips will be undertaken by private vehicle. However, these centres have been identified for growth and it is therefore that this growth is managed in such a way which encourages local walking trips, good urban design and efficient use of space. It is for this reason that it may be desirable to apply maximum parking rates to these centres to allow these outcomes to be achieved. However, the catchment for which the maximum parking rate will apply to the rural satellite centre will be different than other centres, where it is calculated based on distance from the public transport stop. As a result further work is recommended to determine the most appropriate catchment area for these centres.

6.3.4 Centres Not Identified For Growth

There are urban centres and corridors which are listed in the Draft Auckland Plan as not being identified for growth in the draft Auckland Plan including Howick, Grey Lynn, Kingsland, Mission Bay and Devonport. The Plan states that these centres have limited opportunities for growth because of constraints such as heritage, amenity and/or infrastructure provision but does not indicate which reason relates to which centre. The removal of minimum parking rates may still be relevant to some of these town centres, particularly if they have good access to public transport (for example Kingsland and Devonport) to allow for flexibility to provide land uses without parking. This is of particular relevance in areas where heritage issues result in the provision of parking being problematic. It is recommended that consideration is given to removing minimum parking rates from these areas also, subject to them having good access to public transport.

6.3.5 Centres Not Identified in the Auckland Plan

There are some existing centres which are subject to maximum parking requirements, due to their close proximity to public transport, which are not included on the list in the draft Auckland Plan. An example is Smales Farm, which although is predominantly office based will still generate a significant number of vehicle trips in the peak hour and where parking supply rules have the potential to help TDM measures. Other examples of large employment centres where a maximum parking rate may be appropriate as opposed to a minimum rate are Highbrook, North Harbour and the area around the airport. This would be subject to further analysis of public transport accessibility in these areas. Further analysis on these types of business or industrial centres is recommended.

6.4 Summary of Approach

In summary, the analysis outlined in this report has resulted in following recommended approach to minimum and maximum parking rules for inclusion in the Unitary Plan. These points are also summarised in Table 10.

- Maximum Parking rates should be applied to all urban centres and corridors identified for growth in Table 8.2, Table 8.4 and the Rural Satellite Centres identified in the Draft Auckland Plan (at page 109). These maximum rates should be set at similar rates to those adopted for Plan Change 14 and 15 to the Waitakere City District Plan
- Minimum parking rates should be retained in the areas not identified on this list (with the exception of office and retail activities which should be subject to a blanket maximum rate) with a minimum set at 75 % of the maximum level (outside of urban centres and corridors)
- Minimum parking rates should be removed from all urban centres and corridors identified in Tables 8.2 and 8.4 of the Draft Auckland Plan provided they are located on the QTN or RTN network, or are planned to be on the QTN network by 2022 (the next ten years)
- Urban centres or corridors which are not planned to be on the RTN or QTN network by 2022 (including all rural satellite centres) should retain parking minimum rules at a rate of 75 % of the maximum rates
- These rules should apply to the following areas surrounding urban centres and corridors (with the exception of rural satellite centres):

- Sites located within an urban centre or corridor within a distance of 1 km (measured along the road or pedestrian network) from an RTN stop
- Sites located within an urban centre or corridor within a distance of 800 m (measured along the road or pedestrian network) from a QTN stop.

- For rural satellite centres the maximum parking rate should apply for a distance of 1 km from an identified central point of the centre.

If a developer wishes to provide parking in excess of the maximum rate permitted then they will be required to justify their reasons through addressing pre determined assessment criteria. The assessment criteria should be primarily focussed on assessing the effects of the oversupply of parking on the objectives and policies of the town centre (for example increased density, increased use of public transport, affect to pedestrian amenity and safety) as opposed to solely on the effects to the operation and safety of the surrounding road network.

If a developer wishes to provide parking below the minimums set out for an area then again the parking shortfall should be justified through addressing pre determined assessment criteria. As the reason for minimum parking rates are to help manage any potential negative effects of parking overspill, the assessment criteria should address the potential effects on the surrounding road network. However equal consideration should also be given to the planning and transportation objectives and policies of the area.

Table 10: Summary of General Approach

Location or Use	Parking Minimums Apply?	Parking Maximums Apply?
Urban centres and corridors identified for growth in Table 8.2 (p132) and Table 8.4 (p134) of the draft Auckland Plan (see also Map 8.2, p122 of the draft Auckland Plan). Subject to the further work identified below Boundaries' of urban centres and corridors apply to sites located within: • 1 km (measured along the road or pedestrian network) from an RTN stop (Rapid Transit Network = rail or busway) • 800 m (measured along the road or pedestrian network) from a QTN stop (Quality Transit Network)	No – provided they are located on the QTN or RTN, or are planned to be on the QTN network by 2022 (subject to a possible exception of residential land use activities). Yes – if they are not located on the QTN or RTN, and are not planned to be on the QTN network by 2022. Parking minimums = 75% of the maximum rates (ie approximately 63% of peak parking demand).	Yes. Parking maximums = less than 85% of peak parking demand

Table 10: Summary of General Approach

Location or Use	Parking Minimums Apply?	Parking Maximums Apply?
Rural Satellite Centres identified in the draft Auckland Plan (p109) (i.e. Helensville, Kumeu Huapai, Pukekohe, Warkworth, Wellsford, Waiuku) (see also Map 7.1, p106 of the draft Auckland Plan) Boundaries' of rural satellite centres apply to sites located within 1 km of the identified central point (subject to further work identified below)	Yes as per urban centres and corridors not planned to be on the QTN by 2022. Parking minimums = 75% of the maximum rates (ie approx 63% of peak parking demand).	Yes. Parking maximums = aim to permit no more than 85% of peak parking demand
Outside of urban centres and corridors (as identified in row 1 above)	Yes. Parking minimums = aim to permit approximately 75% of peak parking demand (See Section 8.2.1 for further detail)	Yes – for offices only (one space per 30 m² GFA)

The general approach identified in Table 10 is subject to the outcomes of further analysis work which has been identified as follows:

- The recommended approach for minimum parking rates for residential land uses in urban centres and corridors in currently unclear. Further discussion is required with the Council team developing residential land use rules aimed at encouraging a mix of residential types in urban centres and corridors to determine the most appropriate approach
- Further research is undertaken on existing urban centres in Auckland to determine the extent of their likely walkable 'catchment area'. This work could be undertaken in a similar manner to the ARTA study on Papatoetoe[53]
- In recognition of the potential risks associated with the removal of minimum parking rates from local centres, it is recommended that further analysis work be undertaken on these centres. This could be in the form of a high level study of the centres identified as local centres including existing and planned land use and public transport accessibility
- Consideration should be given to extending the central area maximum parking rate zone to some of the urban fringe centres, particularly for commercial activities.
- Further work is required to identify the most appropriate catchment area for maximum parking rates for rural satellite centres
- Further analysis work is required on existing office, industrial park and retail centres which have not been identified as a centre or corridor in the Draft Auckland Plan but which may also be

[53] Beca, 2010, ARTA Pedestrian Studies – Analysis and Findings

suitable for the removal of minimum parking rates (examples include Smales Farm, Highbrook, North Harbour and the airport)

- The urban centres and corridors identified as having limited growth opportunities should be further investigated for their suitability for maximum parking rates.

7 COMPLEMENTARY MEASURES

The research has identified the need for a number of complementary measures to accompany the implementation of the recommended approach. These complementary measures are summarised in the following sections.

7.1 Strategies For Auckland Transport

7.1.1 Comprehensive Parking Management Plans (CPMPs)

Comprehensive Parking Management Plans (CPMPs) are recommended as part of the Auckland Regional Parking Strategy and a number of these Plans have already been completed for town centres in the Auckland area. The aims and objectives of CPMPs are outlined in Section 4.1.4 of this report.

It is considered the development of CPMPs for all urban centres and corridors is an essential accompaniment to the removal of minimum parking standards. However, CPMPs will not form part of the Unitary Plan and will be non statutory documents. There may be a need to include a provision for compliance with any existing CPMP in the Unitary Plan and this will need to be discussed further with Council planners.

The CPMPs will be developed by Auckland Transport. It is acknowledged that there is risk associated with the fact that the Unitary Plan is likely to become operative before the completion of all of the CPMPs. However as discussed in Section 6.2.3, whilst it is acknowledged there is some risk of negative parking overspill effects occurring before the CPMP are in place, it is considered that these risks should be given less weight than the risk of undesirable low density development in urban centres and corridors, which will be difficult to change once complete.

To minimise this risk, it is imperative that Auckland Transport prioritise the preparation of the CPMPs and it is recommended that Auckland Council obtain written confirmation from Auckland Transport confirming this commitment. Due to the number of urban centres and corridors identified, we recommend Auckland Council and Auckland Transport carry out a prioritisation process to ensure the centres most likely to be subject to parking overspill effects on the surrounding network are addressed first.

Strategies to consider when completing CPMPs include:

- The creation of a Transportation Management Association for the urban centre or corridor which should include membership by large private developers in the area, the local community, Auckland Council and Auckland Transport
- Ensuring an appropriate supply of on street parking is available and that this is prioritised for loading facilities, mobility impaired users and short term users

- Adopting appropriate pricing strategies for on street and off street public parking facilities
- Identification of opportunities for shared parking, including how this can be facilitated and/or incentivised by Auckland Transport
- Identification of opportunities to improve user information and marketing, including providing convenient and accurate information on parking availability and price, using maps, signs, brochures and electronic communication
- The development of overflow parking plans for busy times, such as Christmas shopping periods.

7.1.2 Walking and Cycling Studies

Identifying improvements aimed at encouraging walking and cycling through Walking and Cycling Studies is considered to be an important complementary strategy. Many people in Auckland undertake short local trips using private vehicles and encouraging the use of walking and cycling for local trips is an important aspect of providing well designed intensive centres.

Many of the urban centres in the Auckland region have already been subject to Walking and Cycling Studies and we recommend these studies be prioritised, and if necessary updated, for all urban centres and corridors.

7.2 Parking Management Measures in the Unitary Plan

7.2.1 Shared Parking

Shared Parking is the use of parking spaces by multiple users or destinations, including sharing rather than assigning reserved spaces to users and sharing facilities among multiple destinations. It is considered that shared parking should be provided for in the Unitary Plan throughout the region, although the approach to this strategy should vary between sites located within urban centres and corridors and sites in other areas. It is envisaged that shared parking would be allowed for as a discretionary activity which will allow Auckland Council and Auckland Transport to assess the appropriateness of the arrangement against defined assessment criteria.

Outside of urban centres and corridors (and in urban centres and corridors where minimum parking requirements still apply) a similar approach to the existing District Plans should be retained. This is summarised below:

- Shared parking should be permitted in the Unitary Plan
- The parking must be shared between activities which have different peak use times and the suitability of the arrangement will be assessed by Council
- The parking should be located in an appropriate location and if located away from the site should meet the requirements for remote parking (discussed below)
- Signage should be installed at the site to inform users that additional parking is available at an alternative location
- The shared parking arrangement must be formalised through requiring the arrangement to be placed on the Land Title of both parties.

In urban centres and corridors it is considered that shared parking should be actively encouraged and in some cases facilitated by Council. For example, if Council own a centralised parking building a percentage of these spaces could be offered to developers for certain times of the day, in lieu of providing parking on the site itself. These opportunities should be identified as part of the CPMP process.

The conditions around shared parking in urban centres and corridors are not required to be as stringent as those discussed above, due to the fact that minimum parking requirements do not apply. Our recommended approach is summarised below:

- Shared parking should be permitted in urban centres and corridors
- The total number of parking spaces available to one site must not exceed the maximum number of parking spaces permitted for that site
- Where one parking area is being shared by more than one development, the car parking spaces should not be reserved for individual uses.

7.2.2 Remote Parking

Remote parking is when developers provide off site or urban fringe parking facilities, and encourage their use. It is considered that remote parking should be provided for in the Unitary Plan, both inside and outside of urban centres and corridors. However, as with shared parking more stringent conditions should be put in place for remote parking arrangements outside of urban centres and corridors.

Acceptable distances with regard to the provision of remote parking facilities are provided in the Auckland Regional Parking Strategy as a distance of less than 250 m for residents, professional services and medical facilities, less than 350 m for general retail, employees and restaurants and less than 500 m for overflow parking and major events. These distances should be used as a guide when determining the suitability of remote parking arrangements. Within urban centres and corridors the remote parking provision must not exceed the maximum permitted for the land use.

Outside of urban centres and corridors the following additional rules should also apply:

- The appropriateness of remote parking arrangements should be subject to review by Council
- Signage should be installed at the site to inform users that additional parking is available at an alternative location
- The remote parking arrangement must be formalised through requiring the arrangement to be placed on the Land Title of both parties.

7.2.3 Unbundle Parking

Parking spaces are generally ‘bundled’ into the cost of the land use through being included on the title certificate of the property. The strategy of unbundling parking is the process by which the parking spaces are ‘unbundled’ from the price of the property. This strategy can have a significant effect on the cost of property as purchasers can choose whether to include or exclude the price of a parking space in their purchase.

One of the aims of the parking standard specified in the Draft Auckland Plan is to improve housing affordability and it is considered the unbundling of parking spaces from residential properties in urban centres can contribute to this aim. This could be in the form of requiring any parking provided for residential land uses in urban centres and corridors (whether it be through a minimum parking requirement or otherwise) to be unbundled in order to comply with the Unitary Plan. Any other parking could be identified as a discretionary activity.

There is some concern that offering residents the choice of opting out of buying a car parking space will result in residents choosing to use on street parking instead. Therefore, the surrounding on street parking needs to be managed through pricing mechanisms or as a minimum, the implementation (and enforcement) of time restrictions.

The other point to note is that the unbundling of parking will only be attractive to developers if they are able to market any excess parking to others, which may include people commuting to surrounding office activities. This can be desirable, but ideally there would be some form of controls and limits as to how many of these spaces were able to be on sold. For example, the Auckland Regional Parking Strategy recommends that the parking spaces be on sold through a brokerage service provided through a Transport Management Association (TMA).

We recommend that the unbundling of residential parking spaces in urban centres and corridors be included as a discretionary activity in the Unitary Plan. This will enable Auckland Transport and Auckland Council to determine the likely effects, management requirements and suitability of the proposal on a case by case basis. If through the CPMP process it is determined that the unbundling of parking from all residential activities in a particular area is beneficial, then this can be included as a condition of consent.

7.2.4 Cash In Lieu

Cash in Lieu is the process by which private developers can pay money to the local authority instead of providing on site parking. This money is then used by the local authority to manage any effects on the surrounding road network resulting from the parking shortfall. Mixed feedback has been received from Council officers on the success of this approach, as there have been occasions in Auckland where local authorities have not been able to spend money they have collected for this purpose.

It is considered that most of the benefits of a Cash in Lieu system apply to urban centres and corridors, where money can be collected from a number of different developers and used to create a centralised parking facility, supply on street management techniques or be put towards public transport improvements. However, under the recommended approach proposed for inclusion in the Unitary Plan, Cash in Lieu strategies are not relevant as minimum parking requirements do not apply in urban centres and corridors.

Outside of urban centres and corridors the potential benefits are more limited, although it may be appropriate in some circumstances. Our recommendation is that a Cash in Lieu strategy is not encouraged in the Unitary Plan but that it is retained as a possibility for Auckland Council to use on a case by case basis if appropriate. This could be achieved by means of a financial contribution required through a condition on resource consent.

7.3 Requirements For Private Developers

7.3.1 Resource Consent Conditions

It is considered that developments within urban centres and corridors should be subject to resource consent conditions which are aimed at achieving the desired outcomes for the specific centre. In addition to the implementation of maximum parking provision and specific rules around the provision of cycle parking, loading and parking for mobility impaired users (discussed later in this report), it is anticipated that the CPMP process will identify appropriate context specific consent conditions around the management of parking. For example particular CPMPs may identify that due to an existing oversupply of parking in an urban centre, no on site parking should be permitted but that a limited amount of parking can be leased from an adjacent Council owned facility. Another example might be that to accompany a development, time limits are required to be implemented to adjacent on street parking.

The Auckland Regional Parking Strategy identifies a number of consent conditions which are suitable for implementation in high density town centres. Given that it may be some time before all CPMPs are completed we recommend the following consent conditions should be included in the Unitary Plan for all development within urban centres and corridors.

- Developments providing more than ten parking spaces should provide a Parking Control and Management Plan. This is a plan that developers commit to prior to establishing a new parking facility which sets out in detail how parking in the proposed development will be controlled and managed to achieve the aims and objectives of the urban centre or corridor. This will require all developments within the urban centre or corridor catchment area supplying over ten car parks to require resource consent, even if they are proposing to comply with the parking supply provisions in the Unitary Plan. There is a risk this may be considered an onerous task, however this will provide Council with good control over the provision of car parking in urban centres and corridors. Details around assessment criteria will need to be developed.
- Owners and tenants should be members of the urban centre Transport Management Association (TMA) and agree to the aims and objectives of the TMA. The TMA may be set up and run by Auckland Council or Auckland Transport or in the case where there is one major developer, the development of the TMA may be required as a condition of consent.

7.3.2 Development Contributions

Throughout this report it has been identified that the removal of minimum parking requirements in urban centres and corridors will result in additional resource requirement for Auckland Transport and Auckland Council and in effect results in some of the cost of provision of parking being transferred from the private sector. Some of this cost can be recovered through charging for on street parking or Council owned parking facilities but it may be some time before a market for paid parking is generated.

It is therefore recommended that consideration be given to recovering some of this cost through some form of development contributions. The detail as to when and how these contributions will be required and managed will need to the subject of a separate project. However, careful consideration

needs to be given as to the level of these contributions to ensure that they are not set at a level whereby development in urban centres and corridors becomes unattractive.

7.4 Additional Complementary Measures

7.4.1 Rules For Commercial Parking Supply

If the parking supply in urban centres and corridors is going to be managed then it is imperative that strict rules are placed on the provision of non ancillary commercial parking buildings in urban centres and corridors. The over provision of these commercial parking spaces can compromise the aims and objectives of the parking rules, as well as the objectives of each urban centre. However, in some cases the provision of such parking could be desirable, if for example it is used to provide remote parking for a number of land uses in the urban centre or as a park and ride facility, which can be shared with say retail parking demand at the weekends. A CPMP will need to be completed to establish the existing levels of available parking before the effects of such a parking facility can be established.

As part of the CPMP process the need (or otherwise) of commercial parking facilities should be determined based on the existing supply of parking. The CPMP should then include context specific conditions applying specifically to the supply and control of public parking, whether provided by the private or public sector. These conditions should ensure that the amount and type of parking (for example long stay versus short stay) is consistent with the aims and objectives of the urban centre or corridor. The CPMP may also give guidance as to the location and pricing level of the proposed facility. The Auckland Regional Parking Strategy provides potential conditions for commercial parking facilities in urban centres and corridors.

Based on the information available and the fact that CPMPs will not be available for all centres when the Unitary Plan is released, it is recommended that the supply of non ancillary parking in urban centres and corridors be a discretionary activity. Applications should be assessed against pre determined assessment criteria which should be focussed on the aims and objectives of the urban centre and corridor (for example increased density, increase in use of public transport, pedestrian priority) first, before any assessment of effects on the surrounding road network. If the provision of the parking facility does not contribute to the aims and objectives of the town centre then the application should be declined, regardless of whether it can be demonstrated to have less than minor effects on the surrounding road network. Examples of where a parking facility may be determined as appropriate in an urban centre or corridor are outlined below.

- A park and ride facility located in close proximity to the transport interchange. This may be provided on a temporary basis until feeder services to the transport interchange can be improved
- A parking facility near the edge of a town centre which is managed to provide for short term visitors only and is priced appropriately
- A parking facility in a town centre which provides for a central parking provision for land use activities in the town centre rather than on a site by site basis.

7.4.2 Public Transport Improvements

The recommended approach to be incorporated into the Unitary Plan is based on providing less parking in areas which are identified for growth and which have good access to public transport. Auckland's public transport system has improved significantly in recent years but it is important to note that the recommended approach assumes that there will be an ongoing commitment to the upgrade of public transport services.

7.4.3 Strong Land Use and Zoning Policies

This report has outlined a recommended approach to parking provision in Auckland which aims to meet the objectives of the Auckland regional strategic documents. However it is important to note that these rules will only go part way to achieve these aims and that the accompanying land use policies need to be strong enough to support them. In particular consideration needs to be given to the following:

- Ensuring public transport accessibility is a key decision factor when determining permitted densities in urban centres and corridors
- Prohibiting significant commercial developments outside of urban centres and corridors
- Ensuring the permitted activities within zones are appropriate and that large multipurpose zones are not able to be used by developers to provide undesirable developments. E.g. office parks located outside centres and corridors.

8 GENERIC STANDARDS

8.1 General Approach

8.1.1 When Should Parking Rules Apply?

Where maximum parking rates do not apply it is considered that generic minimum parking standards should be retained. As with the existing District Plans it is recommended that the parking provision requirements should apply where either:

- An activity is established on a site
- There is a change of activity
- A building is constructed, substantially reconstructed, altered or added to.

The exception is that these provisions shall not apply in the case of residential units where the reconstruction, alteration or addition is considered to be minor and does not increase the number of units on the site.

8.1.2 Where Should The Rules Be Located?

As discussed in Section 4.2 of this report, there are a number of industry standard guidelines with regard to the provision of parking and loading spaces. The question is whether these guidelines should be referred to in the Unitary Plan as the required standard to be met, or should the Unitary Plan be a standalone document, detailing its own provision rules, which may be based on a specific industry

guidelines but will not include direct reference to the guideline. Currently most existing District Plans include their own parking provision standards. The exception is the Waitakere City District Plan which includes only a very small number of parking rates within the Plan itself and refers to the Waitakere City Engineering Code of Practice, specifically Section 3, Parking and Driveway Guidelines for more detailed guidelines.

The feedback received from Council officers was that it was important that parking provision standards were included in the Unitary Plan, both for ease of use and to ensure officers are able to enforce the rules. However, there are advantages in being able to reference guidelines in the Unitary Plan as a rule for parking provision matters, as it could enable the parking section of the Unitary Plan to be a shorter document. Further, the industry standard guidelines are well used in both New Zealand and Australia.

It is recommended that a compromise position is considered for the Unitary Plan such that the Plan will contain standalone supply rules for the main land use activities but refrain from being overly prescriptive and attempting to consider all land use activities. In addition to this it is also proposed that reference is made in the Unitary Plan to the various parking provision guidelines to provide further guidance if more detailed design information is required.

8.1.3 Number of Land Uses

As a result of the above discussion, there is a need to simplify the number of land use classifications outlined in the Unitary Plan. As outlined in Section 3.2.1 of this report, most existing District Plans include around 60 land use classifications. The exception is the Waitakere City Parking and Driveway Guideline which includes three main land use classifications (residential, retail and other).

A review of overseas examples indicates that most Australian parking provision rules include somewhere between 10 and 20 land use classifications. For land use activities not identified in the list, most plans state that an assessment of parking requirements should be submitted with the application, based on industry standard documents such as the RTA Guide. It is noted that this approach is consistent with our recommended approach to the level of detail required discussed in Section 8.1.1.

While there are obvious benefits in limiting the number of land use classifications as much as possible, there are some concerns that if they are simplified too much, this may result in inappropriate provision of parking numbers for certain activities or an unmanageable increase in resource consent applications for waivers to inappropriate parking rules. Conversely, many of the land use classifications used in the District Plans are subject to variances in parking demand and hence the amount of parking that should be provided, and are therefore are more suited to be subject to an individual traffic report.

Overall our approach as to the number of land uses for which parking provision rates should be included in the Unitary Plan should be similar to the examples in Australia, whereby the number of land use activities is limited to between 10 and 20 classifications. It is noted that further work with Council's resource consent planners will be required to clarify which land uses will fall under which category and which land uses will automatically require an individual assessment. This could take the form of workshops which will help to refine the final proposed land uses.

8.1.4 Measurement Unit and Calculation

There are a number of methods by which parking ratios can be created including Gross Floor Area (GFA), Gross Leasable Floor Area (GLFA), Gross Public Floor Area (GPFA), number of employees, number of units, number of seats, or number of people the facility is designed to accommodate.

Logically, it makes sense that parking ratios should be based on number of people, as people generate parking demand. However, rates based on people can often be difficult to apply as this information is not always known during the application process. In addition, much of the industry standard guidance is provided in GFA or GLFA. The exception to this is residential land uses where parking rates are usually (although not always) provided on a unit basis.

Where possible our approach has been to use GFA as the unit of measurement as this approach is consistent with international and industry standards. However, where there is insufficient evidence to equate GFA with the number of people likely to use the facility, we have used people that the building can accommodate as the unit of measurement.

Where fractional spaces are calculated, it is recommended that the number of parking spaces be rounded down for a fractional space between 0.1 and 0.49 and rounded up for a fractional space of 0.5 and above.

Where more than one activity is present on site, the parking requirements for each activity should be calculated separately and then totalled. However, consideration may be given to shared parking (as a discretionary activity) where it can be demonstrated that the activities have different peak use times.

8.1.4.1 Requirement For Visitor Parking

As discussed in Section 6.1.3.5, the RLTS and RPS clearly states that short stay parking should be prioritised over long stay parking and it is considered this is a good approach to effectively managing parking supply and decreasing the use of private vehicles during peak periods.

The existing District Plans do not specify how a parking provision needs to be allocated in terms of how many parking spaces should be for staff (long term) parking and how many should be visitor (short stay) parking. In addition to the strategic benefits of requiring short stay parking, this has the potential to result in outcomes whereby additional demand is placed on the road network to accommodate development parking, for example:

- Office development, all parking used by staff resulting in insufficient on site visitor parking
- Retail, childcare, healthcare, hospital where the majority of on site parking is made available for visitor parking, resulting in insufficient onsite staff parking
- Residential parking, all being used by residents resulting in insufficient visitor parking

We have considered these effects and in the main have determined that in the main, developments will manage their parking provision appropriately within the limits set. There may be instances where this is not the case and as a result insufficient parking is provided for visitors. However, it is considered that where an applicant complies with the minimum parking provision rule set out in the Unitary Plan, it is unrealistic to continue to monitor how the parking spaces are allocated. It is therefore

recommended that for most land use activities a minimum parking provision for visitor parking spaces is not included. Notwithstanding this, it is considered that despite the difficulties in enforcing rules that require short stay parking, for specific land use activities visitor parking is considered to be a requirement and this has accordingly been included where necessary.

8.2 Recommended Minimum Parking Provision

8.2.1 Approach To Determining Rates

Whilst it is recommended that minimum parking rates should be applied to areas outside of urban centres and corridors, the level at which these minimum rates should be set has been considered carefully. As outlined in Section 4.2.1.1 of this report it appears that in most cases the car parking rates included in the existing District Plans are similar to the industry standard rates. These rates are aimed at providing for between 85 % and 100 % of parking demand during average peak times (ie not the busiest times of the year).

It is acknowledged that these industry standard rates are based on surveys undertaken as long as 20 years ago and travel behaviour has changed over this time. However, the data also includes some (albeit more limited) data from more recent times and it is considered that as long as these rates are used appropriately, much of the data is still relevant today.

The aims and objectives of the revised parking rates are clearly set out in Section 5 of this report. Many of these objectives primarily relate to the provision of parking in growth centres and corridors. However, many are also relevant to the region as a whole, specifically improving housing affordability, decreasing development costs and encouraging active modes of transportation. Of particular relevance is the goal to increase the use of trips by walking, cycling and public transport by 14 % by 2040[54]. Whilst the majority of this increase will be made up of trips around growth centres and corridors, there is also a need to encourage active transport modes throughout the whole region.

A review of the existing literature and feedback from the Council officers has revealed that in the majority of cases the existing District Plan parking rates are set at relatively high levels representing between 85 % and 100 % of peak parking demands. Combining this with the opportunity to help meet the aims and objectives outlined for the region through the use of parking supply as a TDM tool, and the benefit of allowing developers increased flexibility to determine the most appropriate parking supply, it is recommended that the existing minimum rates can be reduced, even outside of growth centres and corridors. It is considered that this can be achieved without significant risk of negative effects on the basis that the market will generally provide appropriate parking to ensure the success of the land use.

Based on this approach, our recommendation is that the Unitary Plan aims to provide for approximately 75 % of peak parking demand on the development site at all but the busiest time of the year. The figure of 75 % is fairly arbitrary but has been selected on the basis that it reflects a fairly small increase in risk to Auckland Transport in terms of managing potential overspill effects on the road network. This will result in a drop in minimum parking requirements of between 10 % and 25 %

[54] Auckland Council, 2011, Draft Auckland Plan

from the existing District Plan rates. The exception to this rule is residential land uses. The reason for this is that people have choices with regard to trips away from the home, for example at what time they travel or whether they share a ride, but most people will return to their home in the evening. Whilst we consider reduced car ownership is likely for people living in urban centres and corridors, people living outside of these areas will most likely to continue to use private vehicles as their main mode of travel and will therefore require a parking space to store their vehicle. For this reason we have not recommended a reduction in minimum parking rates for residential land uses.

Whilst it is acknowledged that a reduction in minimum rates may result in some increase in the management of effects, some of this risk can also be managed through strong land use zoning policies. For example, where a discretionary land use is proposed in a land use zone, we consider that the effects of the proposed level of parking should be included as part of the assessment criteria. Specifically and importantly, the criteria should not refer to minimum parking rates included in the Plan (for a permitted activity in a zone) but require a context specific assessment of effects regardless of whether the parking supply meets the minimum parking rates or not. This would apply only if the activity is discretionary within the subject zone. The result of this change is that minimum parking requirements can be set at a rate which will provide appropriate levels of parking in an average circumstance (where some level of parking overspill onto the surrounding road network can be accommodated) and not in all circumstances (including for example where no overspill parking can be accommodated). An example is a cafe in a residential neighbourhood. The level of parking demand (and therefore the effects on the surrounding residential street network) will depend significantly on the type of cafe and the residential neighbourhood. For example it may depend on the level at which the residential activities depend on the street network for their own parking. We consider that the assessment of effects for the cafe should include a context specific assessment of the proposed parking level, whether it meets a minimum parking requirement outlined in the Plan or not, and that this assessment requirement should be managed through the land use zoning requirements.

In summary our general methodology to determining the appropriate parking provision rates is outlined below:

- A comparison of the rates used in each of the existing Auckland District Plans to the industry best practice rates and those rates used in Australia has been undertaken
- As a general rule the existing minimum parking requirements have been set to equate to approximately 75 % of parking peak parking demand
- In the case where there is insufficient best practice evidence for a separate parking rate for a land use classification it has been removed it from the list.

In forming these recommendations we have assumed the following:

- If an applicant wishes to provide parking at a lower rate than the minimum their application will be assessed against a pre determined assessment criteria which is similar to those included in the existing District Plans. If appropriate, this should include the requirement for a Travel Demand Management (TDM) Plan
- An assessment of effects of the parking level will be required for activities not automatically permitted in particular zones. This will be required regardless of whether the activity includes the minimum parking requirement specified for that activity

- Shared and remote parking are provided for in the Unitary Plan. The suitability of these arrangements needs to be able to be assessed by Auckland Council. This is discussed further in Section 7.2 of this report
- Where a land use classification is not specifically noted in the Unitary Plan, the applicant will provide a context specific parking assessment.

It is recognised that at present this approach is generally based on car parking supply theory and anecdotal evidence from Council officers and professionals that the existing minimum car parking supply rates are set at a relatively high level. Further work may be required to justify the approach of reducing minimum parking requirements outside of urban centres and corridors. This is likely to entail the development of case studies showing how the existing minimum requirements are high.

To fully justify a specific percentage reduction in parking provision rules (as opposed to the arbitrary selection of 75 %) significant further work with regard to data collection for parking supply and demand for land use activities outside of urban centres and corridors would be required. This work is currently being completed on an ongoing basis by the TDB, albeit the provision of new data appears to be quite limited. In reality any parking demand data is an estimate, based on the average of the data available and there is always a margin of error when applying these averages to specific sites. It is therefore considered that a risk management approach, combined with monitoring and ongoing data collection is the most realistic option.

8.2.2 Level of Minimum Requirements – Car parking

8.2.2.1 Residential Land Uses

The land use category "Residential" is currently split into a number of different categories. The number of categories varies between the different District Plans and guidelines but generally includes:

- Household units
- Apartments or high density housing
- Minor household units
- Retirement housing
- Visitor accommodation including hotels, motels, hostels and boarding houses
- Serviced apartments
- Home enterprises or home occupations

For minimum parking requirements for residential developments outside of urban centres and corridors we recommend that similar rates are used to those provided in the existing District Plans. The recommended approach is outlined below.

- For standard detached household units, most District Plans and industry standard guidelines generally agree that a minimum rate of two car parking spaces per unit is appropriate. This standard has been retained

- The exception is in the Hauraki Gulf Islands where feedback has been received that for topographical and environmental reasons the existing rate of one car parking space per household unit is appropriate
- Further based on feedback received from Council officers, it is recommend an additional standard for housing units with over five bedrooms to include a minimum of three car parking spaces be included. This recommendation is as a result of a trend in multiple occupancy homes (ie multiple families living in one house) and multiple generations of one family living in one household which result in additional demands for car parking
- It is considered unlikely that a high number of high density housing developments will be built outside of the identified urban centres and corridors, as it is assumed that the Unitary Plan will have strong land use zoning policies that discourage high density housing from being located outside of identified urban centres and corridors. However there may be some medium density housing (town house) developments on the periphery of the centres but located outside of the maximum parking rate area. Where this does occur it is considered that minimum parking rates should apply but to a slightly lower level than for detached dwellings For this reason it is recommended that a separate rate is applied to attached and stand along dwellings.
- Most District Plans require minor household units to supply a car parking space. It is agreed that this rule should be retained outside of urban centres and corridors. It is noted that not all plans currently provide for minor household units – the Auckland ones do not.
- There are a wide variety of types of housing for the elderly, ranging from care centres which in terms of parking demand are more akin to hospitals, to more independent living units including villas and apartments. The age of residents in independent living units can vary significantly and this has an effect on the parking demand generated by these types of developments. Taking this into consideration, it is considered that a reduced parking provision rate, similar to that contained in past plan changes be adopted for these units. For rest homes and care centres (referred to as assisted living suits) it is considered the rate of hospitals (discussed in Section 8.2.2.8 should apply). Where the development falls somewhere in-between, it is recommended that the applicant submit a traffic report to determine the most appropriate level of car parking
- For visitor accommodation located outside of urban centres and corridors it is recommended a rate of one parking space per unit or room should apply. It is acknowledged that places like boarding houses and hostels are likely to require less parking but it is considered that the number of these facilities located outside of urban centres and corridors is likely to be low. If an applicant decides to develop a boarding house or hostel outside of these locations and believes less parking will be required then a traffic assessment should be required. Additional parking requirements for staff has not been included as it is considered that the rate for visitor accommodation is relatively conservative and staff parking can be managed within this total
- Separate rates for serviced accommodation have been removed as we consider rates for attached household units are likely to be appropriate. Otherwise a traffic report can be required.

A summary of the recommended parking provision rules for residential activities is summarised in Table 11.

Table 11: Residential Land Uses

Location	Type of Residential Accommodation	Parking Rate (Minimum unless otherwise stated)
Urban Centres and Corridors	One bedroom dwellings	A maximum of 1 per unit (Possible minimum rates subject to further discussions)
	Dwellings with two bedrooms or more	A maximum of 2 per unit (Possible minimum rates subject to further discussions)
Other Areas	Detached Household Unit (4 bedrooms or less)	2 per unit
	Detached Household Unit (5 bedrooms or more)	3 per unit
	Attached Household Units (1 and 2 bedrooms)	1.5 per unit plus one visitor space per 5 units
	Attached Household Units (3 bedrooms or more)	2 per unit plus 1 visitor space per 5 units
	Retirement Independent Living Units	2 spaces per 3 units plus 1 visitor space per 5 units
	Minor household units	1 per unit
	Visitor accommodation	1 per unit/room/bedroom

8.2.2.2 Office and Commercial Land Uses

The "Commercial and Office" land use activity also includes some additional categories in some of the existing District Plans including:

- General office
- Commercial services
- Laboratories, research and computer services
- Community welfare services
- Technical services
- Home enterprises.

It is considered that all of these activities can be classified under one classification of commercial. Most of these classifications are based on outdated assumptions for example that government offices are significantly different than private offices. It is recognised that home enterprises may require less parking than a standard office but it is considered that this issue can be resolved by allowing shared parking with the residential parking spaces.

As discussed in Section 6.1.3.2 it is considered that office activities should be subject to a blanket maximum parking rate to avoid office developments being attracted to out of centre locations. The existing District Plan minimum rates for office activities are generally around 1 per 35 m^2 or 1 per 40 m^2. It is noted that both the Manukau and Papakura District Plans require 1 per 20 m^2 for areas open to the public and one per 40 m^2 for areas not open to the public. Industry standard rates range from 1 per 23 m^2 (ITE Guide) to 35 m^2 (NZ source representing 85 % parking demand).

When recommending a maximum rate, consideration has been given to the fact that we are aware that the m^2/employee ratio in offices has decreased in the last 20 years. For example in the Auckland CBD the average office space per worker has decreased from 22.6 m^2 in 1987 to 15.6 m^2 in 2008. While it is acknowledged the Auckland CBD is a special case, data also shows that the average office space per worker in Greenlane is also very low at 17.2 m^2 [55]. This indicates that the same office GFA is likely to have a higher parking demand today than it did 20 years ago.

Research undertaken on parking provided in office activities in some Auckland locations also reveals that the parking provision ratios tend to be high, with even places with good access to alternative transport providing average rates of around 1 car parking space per 30 m^2 (which is significantly higher than the minimum rate of 1 space per 40 m^2 which was in the District Plan before Plan Change 196). Other locations such as Albany and Greenlane have rates as high as one car parking space per 26 m^2 of office activity.

In addition, feedback has been received from Auckland Council Officers that there are currently significant parking overspill effects in office areas such as Albany and Ellerslie and that this was an area of concern.

In contrast, we must also acknowledge that office activities result in a significant proportion of the vehicle trips during peak traffic times. Also because most employees travel the same way every day there is also good potential for successful TDM measures. Even in locations away from public transport, there are other options available such as ride share.

Bearing these points in mind it is considered that an appropriate blanket maximum rate for office activities is 1 per 30 m^2 with a minimum rate of 1 per 45 m^2. This maximum is consistent with the maximum rate for office activities recommended in urban centres and corridors. Whilst it is acknowledged that a minimum rate of one space per 45 m^2 is lower than is included in any of the existing Auckland District Plans (ranging between a 12 % and 22 % reduction), it is considered that the risk that many office developments will emerge outside of urban centres and corridors with very low parking provision is small. Evidence has shown that generally developers of office activities provide as much parking as they are permitted under the District Plan rules. It is also noted that many of the examples from local authorities in Sydney (outside of the city centre) have minimum rates as low as one parking space per 50 m^2 or lower for office activities.

An additional requirement for visitor parking spaces as part of office activities has not been included as we consider this can be managed within the total parking provision.

[55] Zoltan Moricz, 2009, Statement of Evidence from the Auckland City Council Plan Change 235 hearing, CBRE

Table 12: Office Land Uses

Location	Land Use Type	Parking Rate
Urban centres and corridors	Commercial and Office Activities	A maximum of one car parking space per 30 m^2 GFA
Other areas	Commercial and Office Activities	A minimum of one car parking space per 45 m^2 GFA A maximum of one car parking space per 30 m^2 GFA

8.2.2.3 Retail

Of all of the land use categories, Retail has the highest number of sub land use categories in the existing District Plans including, but not limited to:

- Shop
- Motor showroom
- Bulk store
- Dairies
- Comprehensively designed shopping centres
- Factory shops
- Furniture showrooms
- Hairdressers
- Laundries
- Liquor outlets
- Restaurants, cafes, fast food, drive through facilities
- Taverns

Most District Plans have distinguished between standard retail outlets and food retail such as restaurants and cafes. The rates for restaurants and cafes tend to be based on number of seats or the number capacity of the facility rather than GFA. Another retail activity which tends to be classified separately is motor vehicle dealerships and service garages or stations, for which the parking rate is generally based on the number of vehicles displayed or the number of petrol pumps.

We recommend that one minimum parking requirement is provided for retail activities. This appears to be consistent with many of the Australian examples reviewed. Any remaining activities can submit a traffic report if they wish to provide less parking than the minimum required for standard retail activities.

Generally most District Plans include a rate of around one car parking space per 20 m^2 for general retail activities or shops. The exceptions are the Hauraki Gulf Islands section of the Auckland District Plan and the Papakura Plan which include a lower rate of one car parking space per 40 m^2. The Auckland Isthmus splits the retail activity into that provided for the public and that provided for staff

amenity facilities with the retail element having a slightly higher parking rate of one parking space per 17 m^2. Likewise, the Waitakere Parking and Driveway guidelines include a slightly higher rate for retail in the Community Environment of one car parking space per 16 m^2. Generally where a District Plan has provided a specific rate for a particular kind of retail, this tends to be a lower rate, for example laundries and liquor outlets require a rate of one car parking space per 30 m^2 in the North Shore District Plan. This indicates that the minimum car parking rate outlined for general retail is not suitable to all types of retail.

The industry standard guidelines tend to provide different rates depending on the size of the retail activity with the parking rate decreasing as the size of the activity increases with the rates ranging from one car parking space per 13 m^2 to one car parking space per 27 m^2. These rates appear higher than the rates currently used in the District Plans but it is noted that these rates are based on GLFA as opposed to GFA.

When looking at Australian examples there is a large variety of rates again with some of the inner city suburbs including minimum rates of around one space per 30 m^2 and Brisbane including a minimum rate of one space per 16 m^2 (outside of centres).

As with office activities, it is considered that for the most part the market will determine the most appropriate level of parking for retail activities and in the main developers will prefer to provide more parking than less. Therefore, in line with the general approach outlined in Section 8.1 we recommended a reduced minimum rate of one car parking space per 25 m^2 for all general retail activities. To consider the fact that bulk goods retail establishments can have significant storage space, we consider this rate should apply to areas open to the public only.

For restaurants and cafes most existing District Plans include a rate based on the number of people the facility is design to accommodate, with separate requirements for staff. The Auckland Isthmus Plan and the Manukau Plan provide figures of one car parking space per 10 m^2 and one space per 20 m^2 respectively. Feedback from Council Officers from the Rodney area indicated that the current rates for restaurants and taverns are set too high but it is noted that the industry best practice guidelines include even higher rates of between one space per 5 m^2 and one space per 10 m^2. Based on our approach of aiming for around 75 % of demand we have selected a minimum requirement of one car parking space per 15 m^2 (75 % of one car parking space per 5 m^2).

We have not included any specific requirement for staff parking spaces and this will be managed within the total car parking supplied.

Table 13: Retail Land Uses

Location	Land Use Type	Parking Rate
Urban Centres and Corridors	All retail	A maximum of 1 per 25 m^2 GFA ground and mezzanine floors A maximum of 1 per 35 m^2 GFA all other floors
Other Areas	General Retail	A minimum of one car parking space per 25 m^2 GFA (to be applied to areas open to the public only)

	Food based retail	A minimum of one car parking space per 15 m^2 GFA (to include outdoor eating areas)

8.2.2.4 Industrial

There are a variety of land use categories included under the classification of Industry as outlined below:

- Industrial premises
- Depot and yards
- Factories and manufacturing
- Cleaning depots
- Quarrying
- Warehouse, stores, storage yards, trucking and carrier depots
- Network utilities

For industrial premises most of the parking rates including in the existing District Plans are very similar, requiring a rate of between one car parking space per 40 m^2 and one space per 50 m^2. Most also provide an alternative calculation based on the number of employees and requiring whichever calculation results in the highest number of car parking spaces. Rates for depots, yards and warehouses tend to be lower.

A review of the existing industry best practice data indicates that the rates for industrial premises vary significantly from between one parking space per 40 m^2 to one space per 100 m^2. This indicates the variety in terms of the kind of activities which are classified under this land use category.

It is not possible to determine appropriate rates for industrial premises based on GFA as unlike office activities, there is very little information available on the average space per employee ratios. Rather it is considered it is more appropriate to determine a minimum rate based on number of employees. In addition, basing the parking rate on number of employees, results in no distinction having to be made between warehouse activities and other industrial premises.

There are concerns with this approach, namely that that the number of employees may not be known at the time of development and it may be difficult to monitor any changes in employee numbers. Where employee numbers are unknown at the time of development, the applicant could be required to refer to industry standard guidelines and an assessment made on the type of industrial activity the building is likely to be used for based on the surrounding area. However, this would require all industrial activities where the number of employees was unknown to require resource consent. It is unclear at this stage how workable this is and there may be a need to also include a parking provision rule based on GFA, even if the figure is arbitrary. It is acknowledged that it may be easier to monitor changes in GFA as opposed to employee numbers. However, many of the existing District Plans include standards based on employee numbers so it is arguable this issue is currently being managed.

Based on the information above, a minimum rate based on one car parking space per 1.5 employees. It addition, it may be necessary to include a GFA standard to avoid the need for unnecessary resource consents. If this is the case it is considered the standard should include a choice so the applicant can supply whichever is the lower number, calculated either through GFA or number of employees.

Table 14: Industry

Location	Land Use Type	Parking Rate
Urban centres and Corridors	All other land use activities	A maximum of 1 per 25 m^2 GFA ground and mezzanine floors A maximum of 1 per 35 m^2 GFA all other floors
Other Areas	All industrial activities	A minimum of one car parking space per 1.5 employees

8.2.2.5 Entertainment Facilities and Places of Assembly

There are a number of land use categories which can be classified as Entertainment Facilities or Places of Assembly including the following:

- Cinemas and theatres
- Cultural, social and recreational buildings
- Health and fitness centres
- Sports and recreational facilities
- Churches and church halls
- Places of assembly

While there are a number of classifications included in most District Plans it is noted that most of these activities have a minimum parking rate of between one parking space per three people and one parking space per four people the facility is design to accommodate. It therefore seems appropriate to combine these activities into one land use classification. Industry standard rates in GFA ratios exist for some of these activities with gymnasiums being the most common, usually including a rate of around one parking space per 15 m^2, but overall parking demand information on these activities is very limited.

Due to the limited information available, it is considered that a rate based on the number of people the facility is design to accommodate is appropriate. Based on our principle of reducing the minimum rates from the existing standards, and the increased likelihood of people car sharing to these types of venues, it is considered a rate of one car parking space per five people the facility is design to accommodate is appropriate.

Table 15: Entertainment facilities and Places of Assembly

Location	Land Use Type	Parking Rate
Urban centres and Corridors	All other land use activities	A maximum of 1 per 25 m^2 GFA ground and mezzanine floors

Table 15: Entertainment facilities and Places of Assembly

Location	Land Use Type	Parking Rate
		A maximum of 1 per 35 m^2 GFA all other floors
Other Areas	All entertainment facilities and places of assembly	A minimum of one car parking space per five people the facility is designed to accommodate

8.2.2.6 Child Care Centres

All of the existing District Plans (and most of the overseas examples) include a minimum car parking requirements for child care centres. The existing District Plan rates are varied and range from one parking space per four children the facility is designed to accommodate to one space per ten children the facility is designed to accommodate plus one space per staff member. Most District Plans in the region include a requirement of one parking space per ten children the facility is designed to accommodate plus one space per staff member. The only exceptions to this are the Franklin District Plan which includes a rate of one car parking space per four children and the Rodney District Plan which includes a rate of one car parking space per five children plus one per staff member.

There is limited industry information on parking demand for this land use but the RTA Guide includes a rate of one car parking space per four children and the Trips Database Bureau includes parking information on 18 suburban pre school centres (although it is noted that almost all of this data is from surveys undertaken in 1995). These surveys indicate a peak parking demand of between 1.2 and 3.2 car parking spaces per 100 m^2 or 1.6 car parking spaces per ten children. Looking overseas, it is noted that the City of Ryde (a local authority located in outer Sydney) released its DCP in 2010 and includes a specific section on child care facilities. This suggests a parking rate of one space per eight children plus one space per two employees.

Basing the required parking rate on the number of children is determined to be the most appropriate unit measurement for child care centres as for licensing purposes this information is usually available at an early stage.

Based on the fact that there is limited additional data we consider that a rate of one parking space per ten children is considered to be appropriate. However, we consider the rate for staff should be reduced from one parking space per staff member to one parking space per two staff members.

Table 16: Child Care Facilities

Location	Land Use Type	Parking Rate
Urban centres and Corridors	All other land use activities	A maximum of 1 per 25 m^2 GFA ground and mezzanine floors A maximum of 1 per 35 m^2 GFA all other floors
Other Areas	Child Care Facilities	A minimum of one space per ten children the facility is licensed for plus one space

		per two staff members

8.2.2.7 Educational Facilities

Specific parking supply rates for primary, secondary schools and universities are generally provided in all of the District Plans. Likewise there is some industry standard guidance for appropriate rates. However we consider that educational facilities such as school have a significant potential to reduce vehicle trips around the region. As a result we consider that ideally, the Unitary Plan will not include specific minimum parking rates for educational facilities but they should be determined as part of a Travel Plan which is to be considered by the council as part of the outline plan of works. This is of particular importance to schools located within urban centres and corridors where the use of sustainable modes of transport should be encouraged.

The requirement to provide a Travel Plan could be required by a condition on the notice of requirement. This will allow each new school to be assessed within the context of its proposed location. However, due to the fact that private educational facilities do not require designations and the limited power Council has to influence Outline Plans of Works, it is understood that the Unitary Plan may have to include minimum standards which could then be adjusted via a Travel Plan. For larger educational facilities a Travel Plan should be a requirement and further work is required to identify when a Travle Plan should automatically form a condition of consent.

The parking rates for schools in the existing District Plans vary significantly and there is very limited additional information available with regard to guidance on parking provision at educational facilities. However, based on the information available, if minimum rates are required we would recommend minimum parking rates as outlined in Table 17. For primary and secondary schools these rates are generally similar to the existing District Plan rates. For tertiary education the rates are reduced to reflect the fact that the majority of tertiary education facilities should be located in close proximity to public transport. As outlined in Section 7, this assumes the Unitary Plan will include good land use zoning policies. Where the total number of parking spaces exceeds 100 spaces we also recommend a requirement for a parking management plan. This requirement should allow Council discretion over how the car parking is allocated and priced.

Table 17: Educational Facilities

Location	Land Use Type	Parking Rate
Urban centres and Corridors	All other land use activities	To be determined as part of a School Travel Plan to be approved by Council
Other Areas	Educational Facilities	To be determined as part of a School Travel Plan to be approved by Council or Primary, Secondary Schools and tertiary education facilities: 2 spaces per 3 staff members 1 visitor space per classroom

Table 17: Educational Facilities

Location	Land Use Type	Parking Rate
		Drop off area Parking management plan should also be required (if over 100 spaces).

8.2.2.8 Medical Facilities

There are a wide variety of medical facilities ranging from large public hospitals to small private clinics. The rates are contained within the current District Plans.

We consider that large public hospitals are similar to schools and the parking rate should be determined as part of a Travel Plan. However for small private clinics and medical centres minimum parking rates should be included in the Unitary Plan.

The parking rates in the existing District Plans are relatively similar and generally include the following rates:

- For hospitals - one car parking space per three beds plus one space per two (or 1.3) staff members
- For medical clinics – one car parking space per 20 m^2 or a variable number based on the number of consulting rooms

Industry standard rates include one parking space per 16 m^2 (based on an 85 % satisfaction rate) or three spaces per surgery. However, again this information is very limited. Examples from overseas show similar rates of one space per 20 m^2 or two spaces per consulting room plus one space per two staff members.

Based on the evidence available and our general approach we consider a minimum rate of one space per 20 m^2 is considered to be appropriate for medical facilities. However, where the facility includes patients staying overnight (ie private hospitals or care homes) a rate of one parking space per three beds should apply.

8.2.3 Level of Minimum Requirements – Cycling

With the exception of some plan changes minimum cycle parking requirements are generally not included in the existing District Plans. It is considered that some form of minimum cycle parking requirements should be included.

The review of industry practice guidelines reveals that the ARTA guideline is the most appropriate guideline for Auckland. The guideline was prepared in 2007 and was based on a review of industry best practice guidelines including Austroads and the rates included in the Christchurch City Council District Plan. These guidelines are currently being reviewed in detail by Auckland Transport and the findings will be available within time to include in the Unitary Plan. However in the meantime, our

recommended approach to cycle parking is to adopt these standards, subject to the following alterations.

- The cycle parking types should be simplified to include two types only, long stay and short stay
- All rates will be based on GFA or people, not number of parking spaces provided
- Based on our review of other standards we have added the land use activity category of cafe and visitor accommodation
- Small retail activities (less than 50 m^2) located within urban centres and corridors should be excluded from the minimum cycle parking requirement if they can demonstrate that they are in close proximity to a public cycle park facility
- For some activities we think a limit on the minimum requirement is required, for example for large places of assembly or stadiums the cycle requirement can become excessive on a rate of 2 spaces per 50 visitors plus one spacer per 10-15 staff. For example a stadium with a capacity of 50,000 will require a minimum of 2000 cycle parks.

Where secure long stay cycle parking is provided for staff there should be a requirement for end of trip facilities including lockers and showers. This requirement should not apply to commercial car parks.

The recommendations based on the existing ARTA guidelines, together with suggested amendments are outlined in Table 18. It is however recommended that this be reviewed following the findings of the review of the ARTA guideline.

Table 18: Recommended Cycle Parking Rates

Land Use Activity	Secure (Long Stay)	Visitor (Short Stay)
Shopping malls/retail areas	One space per 10-15 employees	1 space for activities up to 200 m^2 GFA For activities over 200 m^2 GFA - 1 space plus one space per 200 m^2 GFA
Cafe	One space per 10-15 employees	1 space for activities up to 100 m^2 GFA For activities over 100 m^2 GFA - 1 space plus one space per 100 m^2 GFA
Primary and Intermediate Schools	1 space per 10-15 staff	1 space per 500 students and staff at the school
Secondary School	1 space per 10 equivalent full time students and one per 10-15 employees	1 space per 500 students and staff at the school
Tertiary Education facility	1 space per 10-20 students 1 space per 10-15 employees	1 space per 800 m2 GFA of office space

Table 18: Recommended Cycle Parking Rates

Land Use Activity	Secure (Long Stay)	Visitor (Short Stay)
Residential Apartment	1 space per unit	1 space per 20 units
Visitor Accommodation	1 space per 10-15 staff	1 space per 20 rooms/beds
Office Building	1 space per 10-15 employees	1 space per 800 m^2 GFA of office space
Industrial	1 space per 10-15 employees	
Recreation Facilities	1 space per 5 employees	1 space per 10-20 visitors
Hospitals	1 space per 10-15 employees	1 space per 50 visitors
Consulting Room		
Places of Assembly (including stadiums)	1 space per 10-15 employees	2 space per 50 visitors (up to a maximum of 200 spaces or more if determined by the applicant)
Public gatherings, outdoor concerts		1 space per 50-200 people (per day or event) predicted to attend the event depending on the accessibility of the venue (up to a maximum of 200 spaces or more if determined by the applicant)
Town Centres	1 space per 20 car parking spaces in commercial car parks	Bicycle parking stands located every 50 m

8.2.4 Level of Minimum Requirements – Motorcycles

Currently none of the District Plans include a minimum car parking requirements for motorcycles. The Auckland Regional Parking Policy recommends a minimum car parking requirement for motorcycles and scooters at a rate of 2 % of the car parking provided.

It is considered that specific requirements should not be included for parking spaces for motorcycles in the Unitary Plan as motorcyclists can easily use a standard car parking space. Provision of specific space for motorcyclists may result in inefficient use of space if the demand for motorcycle parking is not apparent. It could be argued that motorcycles have less environmental impact in terms of air emissions and non renewable fossil fuels. However, the value of encouraging motorcycling for environmental or health benefits is currently unclear and as a result we consider motorcyclists should be accommodated within the overall parking requirement for the site.

8.2.5 Level of Minimum Requirements – Parking For Mobility Impaired Users

Providing parking for mobility impaired users is outlined in the Building Act (2004) and therefore the Unitary Plan must be consistent with these guidelines.

We recommend that the minimum rates outlined in Section 5.4 of the New Zealand Standards Design For Access And Mobility Buildings and Associated Facilities (NZS: 4121:2001) are included in the Unitary Plan. However it is also considered that the following points should be emphasised:

- The parking spaces for mobility impaired users should form part of the total parking requirement
- There is no minimum requirement if no parking is provided on site.

Within urban centres and corridors there would ideally be some flexibility with regard to the provision of mobility parking spaces on site, where for example an on street mobility space could be shared between a number of sites. However, there appears to be limited flexibility within the Building Act.

It is understood that the Building Act (2004) is currently under review but that changes to the requirements for provision for mobility impaired users does not appear to be one of the items being reviewed[56]. We recommend that as part of the Unitary Plan review further work investigation is carried out on the extent of any flexibility allowed for in the existing Building Act. If the flexibility does not extend to shared car parking arrangements then Auckland Council should lobby the Department of Building and Housing with regard to this issue.

Our final recommendation is that the provision of parking spaces for mobility impaired users, including on street provision, should be included in the CPMP process for each urban centre and corridor.

8.2.6 Level of Minimum Requirements – Loading

For goods handling activities loading requirements are extremely important. Many land use activities depend on access to goods delivery or pick up and heavy vehicles can create a significant risk on the road network and need to be managed appropriately.

It is considered that the current methodology of requiring loading bays on the basis of the size of the site and whether the activity handles goods or not is appropriate. As outlined in Section 3.2.1.4 the existing rates given in the District Plans for each geographical area are similar but vary slightly with Rodney District having the highest requirement. The feedback received from Council officers was that generally the requirements for loading were appropriate with the exception of loading within town centres where it was felt that further flexibility was required.

The review of industry best practice literature found limited guidance with regard to the number of loading spaces required for a site. As a result we recommend that the required loading space rates for areas outside of urban centres and corridors should remain similar to the existing rates. In recommending a single rate for the Auckland region, the lowest rate currently used has been selected, which will result in a slight reduction in loading requirements in the former Rodney District and Waitakere City boundaries. It is considered this will not result in significant risks as it is likely that

[56] http://www.dbh.govt.nz/buildingactreview, Visited 29 October 2011

developers will want to provide the loading required to operate their industry well. However, this may require further discussion with Council officers.

In urban centres and corridors it is considered that the minimum rates for loading should be removed. In its place, the applicant should submit a Loading Management Plan to Council which will include the following information and assessment.

- The likely requirement for loading for the activity including the vehicle types
- Whether the loading will be on site, from the street or from an alternative nearby loading space
- If on-street how this will be managed through dedicated loading spaces or requiring loading to be undertaken outside of peak times
- If it cannot be demonstrated that loading can be undertaken safely from the street then Council may require an on-site loading space.

This approach will result in all activities requiring resource consent specifically for loading. It is therefore recommended that this requirement is only enforced for activities which will require servicing by an 8 m truck (or larger).

Table 19: Minimum Loading Requirements

Activity	Rate
All good handling activities located outside of urban centres and corridors	1 space for the first 5000 m^2 GFA 2 spaces for activities between 5,001 – 10,000 m^2 GFA For activities >10,000 m^2 GFA 3 spaces plus 1 for every additional 7,500m^2 GFA
All non goods handling activities located outside of urban centres and corridors	1 space for the first 20,000 m^2 GFA 2 spaces for activities between 20,001 m^2 GFA and 50,000 m^2 GFA For activities >50,000 m^2 GFA 2 spaces plus 1 for every additional 40,000 m^2 GFA
All activities located in urban centres and corridors	No minimum requirements but the applicant must submit and Loading management plan

9 CONCLUSIONS AND RECOMMENDATIONS

9.1 Recommended Parking Provision Rules for the Unitary Plan

Following a review of Auckland Council's strategic aims, feedback from Auckland Council and Auckland Transport Officers and industry best practice the analysis outlined in this report has resulted in the following recommended approach to minimum and maximum parking rules for inclusion in the Unitary Plan. The approach is summarised in Table 20 with further detail provided in Table 21 and Table 22. It is noted that the recommended approach is subject to the further work identified in Section 9.3.

Table 20: Summary of General Approach

Location or Use	Parking Minimums Apply?	Parking Maximums Apply?
Urban centres and corridors identified for growth in Table 8.2 (p132) and Table 8.4 (p134) of the draft Auckland Plan (see also Map 8.2, p122 of the draft Auckland Plan). Subject to the further work identified below. Boundaries' of urban centres and corridors apply to sites located within: 1 km (measured along the road or pedestrian network) from an RTN stop (Rapid Transit Network = rail or busway) 800 m (measured along the road or pedestrian network) from a QTN stop (Quality Transit Network)	No – provided they are located on the QTN or RTN, or are planned to be on the QTN network by 2022. (subject to a possible exception of residential land use activities). Yes – if they are not located on the QTN or RTN, and are not planned to be on the QTN network by 2022. Parking minimums = 75% of the maximum rates (ie approximately 63% of peak parking demand).	Yes. Parking maximums = than 85% of peak parking demand
Rural Satellite Centres identified in the draft Auckland Plan (p109) (i.e. Helensville, Kumeu Huapai, Pukekohe, Warkworth, Wellsford, Waiuku) (see also Map 7.1, p106 of the draft Auckland Plan) Boundaries' of rural satellite centres apply to sites located within 1 km of the identified central point (subject to further work identified below)	Yes as per urban centres and corridors not planned to be on the QTN by 2022. Parking minimums = 75% of the maximum rates (ie approx 63% of peak parking demand).	Yes. Parking maximums = no more than 85% of peak parking demand
Outside of urban centres and corridors (as identified in row 1 above)	Yes. Parking minimums = aim to permit approximately 75% of peak parking demand	Yes – for offices only (one space per 30 m² GFA)

Table 21: Recommended Maximum Parking Rates for Urban Centres and Corridors

Land Use	Maximum Parking Rate
Residential	1 per one bedroom dwelling
	2 per dwelling with two bedrooms or more
Commercial office activities	1 per 30 m^2 GFA
Retail and Other	1 per 25 m^2 GFA ground and mezzanine floors
	1 per 35 m^2 GFA above ground floors
Educational Facilities	Require an individual assessment as part of a Travel Plan

Table 22: Parking Rates Outside of Urban Centres and Corridors

Land Use	Sub Land Use	Minimum Parking Rate
Residential	Detached Household Unit (4 beds or less)	2 per unit (1 per unit in Hauraki)
	Detached Household Unit (5 beds or more)	3 per unit
	Attached Household Units (1 bed)	1 per unit plus one visitor space per 5 units
	Attached Household Units (2 bed or more)	2 per unit plus one visitor space per 5 units
	Retirement Independent Living Units	2 spaces per 3 units plus 1 visitor space per 5 units
	Minor household units	1 per unit
	Visitor accommodation	1 per unit/room/bed
Office and Commercial	N/A	A minimum of one car parking space per 45 m^2 GFA A maximum of one car parking space per 30 m^2 GFA
Retail	General retail	1 per 25 m^2 of GFA open to the public
	Food based retail	1 per 15 m^2 GFA
Industry	N/A	1 per 1.5 employees
Entertainment Facilities and Places of Assembly	N/A	1 per four people the facility is designed to accommodate
Child Care Centres	N/A	1 per ten children plus one per two staff members
Educational Facilities	N/A	An assessment of parking demand shall be submitted to Council for review and approval, taking into account the School Travel Plan process or Primary, Secondary Schools and tertiary education facilities: 2 spaces per 3 staff members 1 visitor space per classroom Drop off area Parking management plan should also be required (if over 100 spaces).
Medical Facilities	Public Hospitals	An assessment of parking demand shall be submitted to Council for review and approval, taking into account the Travel Plan process
	Private Medical Facilities	One space per 20 m^2 GFA

Table 22: Parking Rates Outside of Urban Centres and Corridors

Land Use	Sub Land Use	Minimum Parking Rate
	(non residential)	
	Private Medical Facilities (residential)	One space per three beds
All Other Activities	N/A	An assessment of parking demand shall be submitted to Council for review and approval

In addition to this the following generic standards should be included in the Unitary Plan:

- Minimum parking provision parking for cycle parking should be included at rate levels similar to the ARTA Guidelines. Some amendments have been recommended and are outlined in Section 8.2.3
- Minimum provision rates for motorcycle parking should not be included
- Parking provision for mobility impaired users should be required at the rates outlined in New Zealand Standards Design For Access And Mobility Buildings and Associated Facilities (NZS: 4121:2001)
- In urban centres and corridors the minimum requirement for loading facilities should be removed and replaced with a requirement for a Loading Management Plan
- Outside of urban centres and corridors required loading space rates should remain similar to the existing rates. In recommending a single rate for the Auckland region, the lowest rate currently used has been recommended.

The research has identified the need for a number of complementary measures to accompany the implementation of the recommended approach. Those complementary measures that are recommended for inclusion in the Unitary Plan are as follows:

- Shared parking and remote parking should be provided for in the Unitary Plan subject to recommended assessment criteria
- Unbundling of parking should be considered as a requirement for residential land uses in urban centres and corridors
- The supply of non ancillary parking in urban centres and corridors should be a discretionary activity. Applications should be assessed against strict assessment criteria
- Consideration should be given to requiring all land uses which supply more than ten parking spaces in urban centres and corridors to require resource consent. This will provide Council with good control over the provision of car parking in urban centres and corridors
- The Unitary Plan should require owners and tenants of land use activities within urban centres and corridors to be members of an urban centre Transport Management Association (TMA) and agree to the aims and objectives of the TMA. The TMA may be set up and run by Auckland

Council or Auckland Transport or in the case where there is one major developer, the development of the TMA may be required as a condition of consent

- Cash in Lieu should not be encouraged in the Unitary Plan but should be retained as a possibility for Auckland Council to use on a case by case basis if appropriate
- Consideration should be given to recovering some of the cost of parking management from development contributions. The detail as to when and how these contributions will be required and managed will need to the subject of a separate study
- The implementation of strong land use zoning policies, TDM requirements and the ongoing commitment to public transport improvements are considered to be important with regard to supporting the implementation of the strategy and it is assumed that other part of the Unitary Plan will address these issues.

9.2 Complementary Measures Outside of the Unitary Plan

In addition to the recommended parking provision rules to be included in the Unitary Plan additional complementary measures have been identified as required. These include the development of CPMPs and Walking and Cycling studies for urban centres and corridors.

The most important complementary measure is the development of CPMPs. It is considered the development of CPMPs for all urban centres and corridors is an essential accompaniment to the removal of minimum parking standards. However, CPMPs will not form part of the Unitary Plan and will be non statutory documents. There may be a need to include a provision for compliance with any existing CPMP in the Unitary Plan and this will need to be discussed further with Council planners.

It is acknowledged that there is risk associated with the fact that the Unitary Plan is likely to become operative before the completion of all of the CPMPs. However as discussed in Section 6.2.3, whilst it is acknowledged there is some risk of negative parking overspill effects occurring before the CPMPs are in place, it is considered that these risks should be given less weight than the risk of undesirable low density development in urban centres and corridors, which will be difficult to change once complete.

To minimise this risk, it is imperative that Auckland Transport prioritise the preparation of the CPMPs and it is recommended that Auckland Council obtain written confirmation from Auckland Transport confirming this commitment. Due to the number of urban centres and corridors identified, we recommend Auckland Council and Auckland Transport carry out a prioritisation process to ensure the centres most likely to be subject to parking overspill effects on the surrounding network are addressed first.

Identifying improvements aimed at encouraging walking and cycling through Walking and Cycling Studies is considered to be another important complementary strategy. Many people in Auckland undertake short local trips using private vehicles and encouraging the use of walking and cycling for local trips is an important aspect of providing well designed intensive centres. Many of the urban centres in the Auckland region have already been subject to Walking and Cycling Studies and we recommend these studies be prioritised, and if necessary updated, for all urban centres and corridors

9.3 Further Work

The recommended approach identified in Section 9.1 is subject to the outcomes of further analysis work which has been identified as follows:

- In recognition of the potential risks associated with the removal of minimum parking rates from local centres, it is recommended that further analysis work be undertaken on these centres. This could be in the form of a high level assessment of all of the Local centres for their appropriateness for the removal; of minimum parking requirements. A list of criteria should be developed based around existing and planned land use, land ownership, public transport accessibility and other relevant issues. Each Local centre can then be assessed against the agreed criteria. Although the information will not be to the detail anticipated in the CPMP, the high level information will help determine whether minimum parking rules should be removed at this stage or whether they should be retained subject to the completion of a CPMP
- The recommended approach for minimum parking rates for residential land uses in urban centres and corridors requires further consideration. Further discussion is required with the Council team developing residential land use rules aimed at encouraging a mix of residential types in urban centres and corridors to determine the most appropriate approach
- To provide further justification for the reduction of minimum parking rates outside of urban centres and corridors, case studies would have to be collected and analysed to complement the parking theory and anecdotal evidence relied on in this report
- Further research is required on walking catchments of existing urban centres in Auckland to justify the recommended generic cactchment areas identified for maximum parking provision rules for centres and corridors. This work could be undertaken in a similar manner to the ARTA study on Papatoetoe[57]
- Further work on the most appropriate parking provision rules for the central city fringe centres including Ponsonby, Three Lamps, Parnell, Grafton and Newton is recommended
- Further work is required to identify the most appropriate catchment area for maximum parking rates for rural satellite centres
- Further analysis work is required on existing office, industrial park and retail centres which have not been identified as a centre or corridor in the Draft Auckland Plan but which may also be suitable for the removal of minimum parking rates (examples include Smales Farm, Highbrook, North Harbour and the airport)
- The urban centres and corridors identified as having limited growth opportunities should be further investigated for their suitability for maximum parking rates.

In addition to these specific recommendations for further work, it is recommended that some testing be undertaken on the recommended approach. This could be in the form of some case studies on different centres and corridors and applying the rules theoretically to identify any unintended consequences.

[57] Beca, 2010, ARTA Pedestrian Studies – Analysis and Findings

APPENDIX A District Plan Car Parking Rates

Table A1: District Plan Comparison

Category	Activity	Parking Standards							
		Manukau District Plan	Franklin District Plan	North Shore District Plan	Papakura District Plan	Rodney District Plan	Auckland City District Plan		Waitakere District Plan
							Isthmus	Hauraki	
Residential	**Household Unit**	2 per unit	2 per unit	1 per unit with a GFA of 50m² or less. 2 per unit GFA > 50m² Plus Visitor parking spaces on-site at the rate of 0.5 spaces for each unit over 50 m² gross floor area	2 per unit, OR relevant Rules for the Z1	2 per unit Special18 (Gulf Harbour) Z1: 1 visitor space per 4 units Orewa Retail Service Z1 1 Bedroom - 1 space per unit 2 Bedrooms - 1.5 spaces per unit 3 Bedroom or more - 2 spaces per unit In all cases 0.25 spaces per unit for visitors	2 per unit	1 per dwelling	2 per dwelling in the Living Environment 1 per unit in the working and community environment 1 per unit in the New Lynn and Henderson town centres

Table A1: District Plan Comparison

Category	Activity	Parking Standards							
		Manukau District Plan	Franklin District Plan	North Shore District Plan	Papakura District Plan	Rodney District Plan	Auckland City District Plan		Waitakere District Plan
							Isthmus	Hauraki	
	Apartment Buildings, Intensive Housing,			Business 12 - Mixed Use z1 Area A (Albany Village): Studio/1 bedroom residential unit - 1 2 or more bedroom residential unit - 2 In the Business 12 - Mixed Use z1 Area B Studio/1 bedroom residential unit - 1 2 bedroom residential unit - 1.5 spaces 3 or more bedroom residential unit - 2 spaces Visitor parking spaces 0.5 spaces per unit > 50 m² GFA, in addition to those required for private use by unit occupiers Business 12 - Mixed Use z1, visitor parking spaces - 1 space per 5 units					1 per apartment unit
	Housing for Elderly	1 per 4 household units plus 1 per resident caretaker		1 per 3 units			1 per 2 units or, where not in the form separate units, 1 per 2 bedrooms; plus 1 visitor space for 5 units or 5 bedrooms	1 space per 8 rest home beds Excluding rest home beds, 1 space per 5 units or per 5 bedrooms 1 visitor space per seven units or bedrooms 1 space per 3 non resident employees 1 space for every resident caregiver	

Table A1: District Plan Comparison

Category	Activity	Parking Standards							
		Manukau District Plan	Franklin District Plan	North Shore District Plan	Papakura District Plan	Rodney District Plan	Auckland City District Plan		Waitakere District Plan
							Isthmus	Hauraki	
	Residential Care Centres			2 spaces, plus 1 for six persons (excluding the caregivers/caregivers family) the building is designed to accommodate				1 space for every six residents the facility is designed to accommodate 1 per 3 non-resident employees 1 per managers unit	
	Minor Household Units	1 per minor household unit		1 per unit with a GFA of 50m² or less. 2 per unit GFA > 50m²	Central Business Area 1 per 1 to 2 bedroom units. 2 per units> 2 bedrooms.	1 per unit, maximum 3 covered spaces except in a Rural Z1.			1 per unit
	Special Housing Developments		1 per self-contained unit plus either 1 per 50m2 GFA (excluding the units) or 1 per 2 bedrooms, whichever is the greater.						
	Homes for the Aged	1 per 3 persons building designed to accommodate, plus 1 per resident employee, plus 1 per 2 non-resident employees				1 per 5 persons the premises are designed to accommodate, plus 1 per resident employee, plus 1 per non-resident employee			
	Rest Homes			1 per 5 people the facility is licensed to accommodate, plus 1 per 2 employees			1 per 2 employees plus 1 per 5 people the facility is designed to accommodate.		

Table A1: District Plan Comparison

Category	Activity	Parking Standards							
		Manukau District Plan	Franklin District Plan	North Shore District Plan	Papakura District Plan	Rodney District Plan	Auckland City District Plan		Waitakere District Plan
							Isthmus	Hauraki	
	Retirement Village			1 per unit, plus 1 per 4 units (all other uses to be assessed separately)			1 per 2 employees; plus 1 space per 5 rest home beds; plus 1 per 3 serviced studio/ single bedroom units/apartments; plus 1 per other residential or serviced unit/apartment; plus 1 space per 5 units/apartments for visitors.		
Visitor Accommodation	**Boarding Houses**	1 per 3 persons the building is designed to accommodate, plus 1 per 2 non-resident employees employed on site.		1 space per 3 persons the building designed to accommodate, plus 1 per non-residential employee		all visitor accommodation: 1 per unit, plus 1 per 10m^2 GFA bar or restaurant space (outdoor drinking areas assessed at 1 per 15m2); plus 1 per 1.3 employees on the site.	1 per non-residential employee plus 1 per 3 residents the boarding house/hostel is designed to accommodate; plus 2 for any manager's unit.	1 space per 3 residents designed to accommodate. 1 space per 2 non-resident employees. 1 space for any manager's unit	
	Hotels	1 per 4 guest rooms, plus 1 per 2 fulltime staff employed, additional parking provided in accordance with parking requirements below, plus 1 per 3.5 persons to be accommodated within restaurant or bars.				1 per 3 persons the building is designed to accommodate, plus 1 per non-resident employee on the site.	1 per 2 non-residential employees plus 1 per unit or, where the accommodation provided is not in the form units, 1 per bedroom; plus 2 for any manager's unit.	1 space per 2 non-residential employees. 1 space per 3 units or, where the accommodation provided is not in the form units, 1 space per 3 bedrooms. 1 space for any manager's unit.	
	Motor Camp		1 per camp site plus 1 per cabin plus 2 for manager's residence.						

Table A1: District Plan Comparison

Category	Activity	Parking Standards							
		Manukau District Plan	Franklin District Plan	North Shore District Plan	Papakura District Plan	Rodney District Plan	Auckland City District Plan		Waitakere District Plan
							Isthmus	Hauraki	
	Travellers' Accommodation	1 per unit, plus 1 per 2 persons employed, plus 1 per 3.5 persons to be accommodated within a restaurant or bar area,.	1 per self-contained unit plus 2 for the manager's residence	1 per unit, plus 1 per 2 employees, plus 1 for 10m² GFA restaurant (bar area, beer garden and conference facilities to be separately addressed)					
	Camping Ground			1 per unit, camp site or caravan site, plus 1 per 2 employees			1 per camp site or cabin, plus 1 per 2 employees.	1 per 2 camp sites. 1 per 2 non-resident employees.1 for any manager's unit.	
Retail	**Auction Room and Second hand Mart**	1 per 50m^2 GFA plus 1 per 100m^2 open space used for storage plus 1 per permanent employee		1 per 35m² GFA					
	Building Improvement Centres	1 per 30m^2 retail area plus 1 per 40m^2 other floor space, plus 1 per 100m^2 outdoor display		1 per 40m² GFA			1 per 20m² GFA plus 1 per 100m² outside display.		
	Bulk Store						1 per 100m² GFA plus 1 per 100m² outdoor storage		
	Dairies			1 per 35m² GFA					
	Equipment Hire	1 per 40m^2 GFA		1 per 40m² GFA, plus 1 per 100m² outdoor/storage display		1 per 40m2 GFA, plus 1 per 100m2 remaining site plus1 per 1.3 employees on site.			
	Factory Shops			1 per 35m² GFA					

Table A1: District Plan Comparison

Category	Activity	Parking Standards							
		Manukau District Plan	Franklin District Plan	North Shore District Plan	Papakura District Plan	Rodney District Plan	Auckland City District Plan		Waitakere District Plan
							Isthmus	Hauraki	
	Furniture Showrooms	1 per 30m^2 display /retail floor, plus 1 per 40m^2 other floors		1 per 40m² GFA					
	Garden Centres **And Nurseries**	1 per 500m^2 gross land area where used for garden centre purposes, plus 1 per 2 persons employed on site, plus 1 per 40m^2 enclosed indoor selling area		1 per 20m² GFA Plus 1 per 100m² outdoor/display area		1 per 100m^2 outdoor display area, plus 1 per 25m^2 enclosed indoor selling area; plus 1 per 1.3 employees on the site.	1 per 20m² GFA building and 1 per 100m² outside area used for display purposes.		
	Hairdressing and Beauty Salons	1 per 20m^2 GFA							
	Banks	1 per 35m2 GFA		1 per 30m² GFA		1 per 25m^2 GFA			
	Laundries			1 per 30m² GFA					
	Liquor Outlet			1 per 30m² GFA					
	Motor Vehicle Dealerships	(car and boat) 2 per display up to 20 cars or boats in showroom or yard plus 1 per additional 10 cars or boats displayed, plus 1 per employee.		1 per 20 displayed, plus 1 per employee, plus 4 spaces per repair/lubrication bay	1 per 20 vehicles displayed, plus 1 per employee, plus 4 spaces per repair and lubrication bay		1 per 10 vehicle display spaces , plus 4 spaces per each repair/lubrication bay, plus 1 for each 50m² GFA remaining building used.	1 space per 20 vehicle display spaces. 1 space per 50m^2 GFA remaining building used.	
	Motor Vehicle Trimmers, painters and Upholsterers	3 per workshop bay on the premises, plus 1 per person employed.		1 per 50m² GFA, plus 1 per 200m² outdoor storage space				4 spaces per repair/ lubrication bay. 1 per 50m^2 GFA remaining building used.	

Table A1: District Plan Comparison

Category	Activity	Parking Standards							
		Manukau District Plan	Franklin District Plan	North Shore District Plan	Papakura District Plan	Rodney District Plan	Auckland City District Plan		Waitakere District Plan
							Isthmus	Hauraki	
	Markets	Indoor - 1 per 15m2 GFA occupied by the market Outdoor - 3.5 per stall provided, plus requirements for other onsite uses.							
	On Licence Liquor Premises		Inside Business Centre:1 per 20m2 GFA, Outside Business "Centre": 1 per 15m2 GFA						
	Restaurants, Cafes, **Fast Food, Family Restaurant, Café, Restaurant, Takeaway,** **Drive Through Facility**	Coffee bars and tea rooms: 1 per 20m^2 GFA Restaurants and Reception Lounges: 1 per 4 persons building designed to accommodate, plus 1 per 2 staff, plus where drive-in takeaway service, adequate drive-in facilities shall be provided..	Inside Business "Centre": 1 per 40m^2 GFA, plus not less than 4 queuing spaces for any drive through facility. Outside Business "Centre": 1 per 30m2 GFA plus not less than 4 queuing spaces for any drive through facility.	1 space per 3 seats 5 queuing spaces per drive through facility (parking requirements must be provided by the applicant within traffic study)	1 per 4 persons facility designed to accommodate, plus 1 per 2 staff,	1 per 4 persons activity designed accommodate; plus 1 per 1.3 employees Restaurants in Orewa Town Centre Policy Area 1 per 20m^2 GLA Restaurants in the Special 20 (Mahurangi East Seaside Village Centre) Z1 (Commercial Policy Area) 1 per 20m^2 GLA	1 per 10m² GFA, plus 1 per 15m² outdoor eating area. 5 queuing spaces per drive through booth or facility.	1 space per eight customers the premises are designed to have capacity for. 1 space per 2 staff employed on site or operating from the site at any one time.	

Table A1: District Plan Comparison

Category	Activity	Parking Standards							
		Manukau District Plan	Franklin District Plan	North Shore District Plan	Papakura District Plan	Rodney District Plan	Auckland City District Plan		Waitakere District Plan
							Isthmus	Hauraki	
	Retailing Activities/shops	1 per 20 m^2	1 per 15m^2 GFA minus the number spaces that are permanently provided in the road in front the premises by way kerb indentation or similar means.	Takapuna (Bus 3 z1) - 1:35m² GFA Devonport (Bus 2 z1) - 1:25m² GFA All other areas - 1:20m² GFA Business 12 - Mixed Use A (Albany Village) z1: 1:20m2 GFA In the Business 12 - Mixed Use B (Bute Road) and C (Clyde Road/ Beach Front Lane) z1s: 1:30m2 GFA	1 per 40m2 GFA; excluding common pedestrian areas, loading spaces, plus 1 per 40m2 for other activities	1 per 20 m^2	1 per 17m² GFA, plus 1 per 17m² outdoor retail, 1 per 40m² GFA for staff amenity activities, plus 1 per 40m² office and storage space.	1 space per 40m^2 GFA. 1 space per 40m^2 outdoor retail. 1 space per 80m^2 GFA staff amenity activities, 1 space per 80m^2 office and storage space.	1 per 20 m^2 in the Working environment and 1 per 16 m^2 in the Community environment 0 in new Lynn town centre if the site is less than 1000 m^2 New Lynn and Henderson town centre 1 per 25 sqm GFA at ground level 1 oer 35 sqm GFA at other levels
	Sales Goods Including Produce			3 for each property					

Table A1: District Plan Comparison

Category	Activity	Parking Standards							
		Manukau District Plan	Franklin District Plan	North Shore District Plan	Papakura District Plan	Rodney District Plan	Auckland City District Plan		Waitakere District Plan
							Isthmus	Hauraki	
	Service garages and Stations	5 per lubrication bay, mechanical repair or working bay for the first 2 bays, plus 2 per additional lubrication, mechanical repair or working bay, plus 1 for spare parts sales counter, plus 1 per 40m2 retail shop space for the first 240m2 retail shop space, plus additional space per 100m2 retail shop space above 250m2, plus 1 per person employed.	1 per 30m2 retail space plus 4 per workshop bay plus 3 queuing spaces for a car wash plus 2 per air hose/vacuum	5 + 1 space per 50m² GFA retail sales and display, plus 3 queuing spaces per car wash 4 per workbay up to 7 work bays, then 3 per workbay	(without workshops) 1 per 35m2 GFA used for fuels sales or retail activities, 2 per 3 staff, 2 queuing spaces for a car wash (with workshops) 1 per 35m2 GFA used fuels sales/ retail activities, 4 spaces per lubrication bay, mechanical repair bay or vehicle maintenance bay 3 queuing spaces for a car wash	4 per mechanical repair bay/ lubrication bay/ work bay for 1st 2 bays, plus 2 per additional lubrication, mechanical repair or working bay, plus 1 per 40 m2 retail SHOP space GFA, plus 1 per employee on site, plus 3 per carwash, plus 1 for each airhose/vacuum.	1 per 35m² GFA shop, plus 2 spaces per 3 employees, 4 spaces per repair bay, 1 space per air hose or vacuum cleaner and 3 queuing spaces per car wash.	1 space per 40m^2 GFA retail shop. 1 space per 2 employees. 4 spaces for each repair or lubrication bay. 1 space per air hose or vacuum cleaner. 2 queuing spaces per car wash.	
	Shops and Supermarkets in Business Z1s 4/5/6			1 per 16m² GLA for the first 6,000m² GLA, 1 per 20m² GLA for the next 4,000m² GLA, 1 per 22m² GLA next 10,000m² GLA, 1 per 25m² GLA for over 20,000m²					
	Stalls for direct sale farm produce	6 per property							

Table A1: District Plan Comparison

Category	Activity	Parking Standards							
		Manukau District Plan	Franklin District Plan	North Shore District Plan	Papakura District Plan	Rodney District Plan	Auckland City District Plan		Waitakere District Plan
							Isthmus	Hauraki	
	Taverns	1 per 3.5 persons to be accommodated.		Up to 150 persons max: 1 per 10 persons, 151 to 200 persons: 1 per 8 persons 201 to 250 persons: 1 per 5 persons More than 251 persons: 1 per 3 persons	1 per 3.5 persons the facility is designed to accommodate.		Up to 150 persons design occupancy 1 per 6 persons Between 151 and 200: 1 per 5 persons Between 201 and 250: 1 per 4 persons. Between 251 and 300: 1 per 3 persons	1 space per six persons the tavern is designed to have capacity for.	
	Takeaway Food Bars	1 per 20m2 GFA		1 per 20m² GFA					
	Totalisator Agency Board Premises	1 per 2 persons employed, plus 1 per 20m2 GFA public space on the premises.		1 per 35m² GFA					
	Trade Supply Outlets, Yard Based Retail and Garden Centres		1 per 40m^2 GFA , plus 1 per 500m2 yard, plus 1 per 2 employees.						
	Variety Discount (Supermarket) and merchandising		Inside Business "Centre":1 per 30m2 GFA. Outside Business "Centre": 1 per 25m2 GFA						
	Vehicle/ Boat Sales Premises					2 plus 1 per 200 m^2 Showroom/ Outdoor Display Areas.			
	Video Hire Outlet	1 per 20m2 gross floor space.							

Table A1: District Plan Comparison

Category	Activity	Parking Standards							
		Manukau District Plan	Franklin District Plan	North Shore District Plan	Papakura District Plan	Rodney District Plan	Auckland City District Plan		Waitakere District Plan
							Isthmus	Hauraki	
	Warehouse Shop	1 per 20m2 GFA in warehouse shop.							
	Wineries							1 per 2 employees. 1 per 50m^2 GFA retail shop	
	Wool Stores	1 per 300m2 GFA up to 20,000m2, plus 1 per 600m2 GFA in excess 20,000m2, or 1 per 2 persons to be employed on site.							
Entertainment and Recreational	**Amusement Galleries**	1 per 20m2 GFA		1 per 35m² GFA					
	Art Galleries			1 per 40m² GFA				1 space per 50m^2 GFA.	
	Cinemas and Theatres	1 per 3.5 persons the building is designed to accommodate.	Inside Business "Centre": 1 per 6 seats. Outside Business "Centre": 1 per 4 seats.	1 per 4 persons facility accommodates, plus 1 per 2 employees Clubs and Clubrooms 1 per 4 persons the facility designed to accommodate		1 per 3 persons the facility is designed to accommodate, plus 1 per 1.3 employees on the site.			
	Craft Activities			1 per 35m² GFA					
	Media Studios			1 per 30m² GFA					
	Cultural, Social and Recreational Purposes (Premises)	1 per 3.5 persons the building is designed to accommodate.			1 per 3.5 persons facility designed to accommodate				

Table A1: District Plan Comparison

Category	Activity	Parking Standards							
		Manukau District Plan	Franklin District Plan	North Shore District Plan	Papakura District Plan	Rodney District Plan	Auckland City District Plan		Waitakere District Plan
							Isthmus	Hauraki	
	Function Facilities							1 per 5 people facility designed to accommodate.	
	Health and Fitness Centres	1 per 2 staff employed, plus 1.5 per customer service room or booth, or 1 per 3.5 persons to be accommodated.		1 per 20m² GFA Other - 1 per 40m² GFA					
	Heritage Centre		Determined at time application assessed and imposed by conditions.						
	Health Studio	1 per 2 staff employed, plus 1.5 per customer service room or booth, or 1 per 3.5 persons to be accommodated,							
	Horse riding clubs and Schools	10 motor vehicle and trailer (all weather) spaces per property and adequate vehicle turning area.							
	Marina			To be provided by the applicant in form of traffic study		0.7 per berth			
	Outdoor Recreation Based Natural Resources Area			1 per 4 persons the facility is designed to accommodate					

Table A1: District Plan Comparison

Category	Activity	Parking Standards							
		Manukau District Plan	Franklin District Plan	North Shore District Plan	Papakura District Plan	Rodney District Plan	Auckland City District Plan		Waitakere District Plan
							Isthmus	Hauraki	
	Outdoor Recreation					1 per 3 persons the activity is designed to accommodate.			
	Premises for Cultural Activity and Natural Display						1 per 5 people facility is designed to accommodate.		
	Pleasure Craft (Launching)	5 motor vehicle/ trailer spaces per 1m width launching ramp,							
	Pleasure Craft (Mooring)	0.8 per berth or mooring space							
	Residential and Non-residential Clubs	1 per 3 persons the building is designed to accommodate.							
	Recreation and Entertainment Facilities	1 per 3.5 persons facility designed to accommodate			1 per 3 persons facility designed to accommodate; plus 1 per 1.3 employees on site.	1 per 4 people the facility is designed to accommodate.	1 per 3 people the facility is designed to accommodate	1 per 3 people the facility is designed to have capacity for.	
	Sports and Recreational Facilities			1 per 4 people the facility is designed to accommodate					

Table A1: District Plan Comparison

Category	Activity	Parking Standards							
		Manukau District Plan	Franklin District Plan	North Shore District Plan	Papakura District Plan	Rodney District Plan	Auckland City District Plan		Waitakere District Plan
							Isthmus	Hauraki	
	Sports Grounds and Playing Fields						low intensity activities:2 and a half spaces per 1 hectare. medium intensity activities: 12 and a half spaces per hectare high intensity activities 25 spaces per hectare Very high intensity activities: 125 per hectare devoted to the activity.		
	Tourist Complex						1 per room, plus 1 per 2 employees plus 1 per 10m² GFA restaurant and 1 per 8m² conference facility.	1 space per 3 units or, where accommodation in form of units, 1 per 3 bedrooms. 1 space per 2 employees. 1 space per 4 customers the restaurant is designed to have capacity for. 1 space per 5 people the function facility is designed to have capacity for.	
Industrial	**Cleaning Depots**	1 per 40m2 GFA.							
	Container Depots and Terminals	1 per 2 persons employed on site or operating from the site at any 1 time.							
	Depot and Yards.			1 per 100m² GFA, and 1 per 100m² open space used for that purpose		1 per 90m² both GFA and site area used for such purposes, or 1 per employee on the site, whichever is the greater.			

Table A1: District Plan Comparison

Category	Activity	Parking Standards							
		Manukau District Plan	Franklin District Plan	North Shore District Plan	Papakura District Plan	Rodney District Plan	Auckland City District Plan		Waitakere District Plan
							Isthmus	Hauraki	
	Electricity Generation						1 per employee working in or at the facility , plus 3 visitor carparks plus 1 space for a 99 percentile truck		
	Electricity Substations	1 per 2 persons employed on site or operating from the site at any 1 time							
	Greenhouses	1 per 3 non-resident employees on site or operating from the site at any 1 time.							
	Industrial Premises	1 per 45m2 GFA buildings, plus 1 per 100m2 open space or 1 per 2 persons to be employed on site (whichever requirement is the greater.)	1 per 100m2 GFA. plus 1 per 500 m2 outdoor space used for the activity	1 per 40m² GFA	1 per 45m² GFA , plus the greater either: 1 per 100m² open space used for industrial purposes, OR 1 per 2 persons employed.	1 per 46m^2 both GFA and site area used for such purpose, or 1 per 1.3 employees on the site, whichever is the greater.	1 per 50m² GFA plus, in the case a motor vehicle servicing premises, 4 spaces for each repair or lubrication bay.	1 space per 50m^2 GFA plus, 1 space per 100m^2 outdoor space used for industrial purposes	
	Motor Vehicle Wrecking, Machinery and Workrooms						1 per 50m² GFA plus 1 per 200m² outdoor storage space.		
	Quarrying	1 per 45m2 GFA building, or 1 per 2 employees on site/ operating from the site, whichever the greater.							
	Studio Warehousing				4 per unit				

Table A1: District Plan Comparison

Category	Activity	Parking Standards							
		Manukau District Plan	Franklin District Plan	North Shore District Plan	Papakura District Plan	Rodney District Plan	Auckland City District Plan		Waitakere District Plan
							Isthmus	Hauraki	
	Trading			1 per 16m² GFA retail trading space, plus 1 per 100m² GFA storage area					
	Warehouse, Stores, Storage Yards, Trucking and Carrier Depots	1 per 100m2 GFA building, plus 1 per 100m2 open space, or 1 per 2 employees on site/ operating on site (whichever greater)	1 per 100m2 GFA. BUILDINGS plus 1 per 500 m2 outdoor space used for the activity	1 per 100m² GFA	1 per 100m² GFA building, plus where open used industrial purposes the greater either: 1 per 100m² open space OR 1 per 2 persons to be employed.	1 per 90m^2 GFA. 1 per 200m2 site area used for yard purposes, plus 1 per 35m^2 GFA used for ofices, plus 1 per 25m^2 gross shopping floor area.	1 per 50m² GFA plus 1 per 100m² outdoor storage area.		
	Wholesale and Showrooms (excluding sales to general public)			1 carpark per 50m² GFA					
	Workroom						1 space per 50m² GFA.		
	Yards for Caravans and Boats			2 spaces plus 1 per 20 caravan or boats displayed					
Education	**Community Use School Facilities**						1 per 4 people attending.		
	Educational Facilities for adults (Including tertiary)	2 per 3 staff, plus 1 per 3.5 adult students present on site time							

Table A1: District Plan Comparison

Category	Activity	Parking Standards							
		Manukau District Plan	Franklin District Plan	North Shore District Plan	Papakura District Plan	Rodney District Plan	Auckland City District Plan		Waitakere District Plan
							Isthmus	Hauraki	
	Educational Facilities	Primary and Intermediate: 2 per 3 staff members employed on site and suitable drop f area. Public Secondary: 2 per 3 staff members employed, plus 1 per 30 pupils aged 15 years and over, plus suitable drop f area. Private Secondary: 2 per 3 staff members, plus 1 per 15 pupils aged 15 years and over, plus suitable drop f area.	Schools: 1 per teacher plus 1 for each fice/support person plus 3 for each 6th and 7th form class.	schools Primary - 1 space per classroom, plus 1 per employee Secondary - 1 space per 10 pupils aged 16 or over, plus 1 per employee Tertiary and other facilities (to be provided by the applicant within a traffic study)	2 per 3 staff members plus 1 per 30 pupils aged 15 years and over	(excluding schools) 1 per 2 persons designed to accommodate; plus 1 per 1.3 employees. Pre-schools and Childcare Facilities 1 per 5 students, to be available for setting down/ picking up; plus 1 per employee Primary and Intermediate: 1 per 10 students, to be available setting down/ picking up students; plus 1 per employee Secondary Schools 1 per 20 students 15 years+, plus 1 per 20 students, for the setting down and picking up students; plus 1 per employee.	Primary, Intermediate and Secondary - 2 per classroom. Tertiary and other facilities - 1 per 3 persons the facility is designed to accommodate.	primary and intermediate: 1 per 15 students, to be available for setting down/ picking up students, plus 1 per 2 employees secondary schools: 1 per 30 students 15+, plus 1 per 30 student, available setting down/picking up students, plus 1 per 2 employees. Tertiary: 1 per 3 students, plus 1 per 2 employees.	
Offices and Commercial Services									
	Breeding and Boarding Establishments for Animals			2 per 20 animals the establishment is designed to accommodate				1 for animal drop-off/pick-up purposes per 20 animals facility designed to accommodate. 1 per 2 non-resident employees.	
	Commercial Services			1 per 35m² GFA		1 per 35m^2 GFA.			

Table A1: District Plan Comparison

Category	Activity	Parking Standards							
		Manukau District Plan	Franklin District Plan	North Shore District Plan	Papakura District Plan	Rodney District Plan	Auckland City District Plan		Waitakere District Plan
							Isthmus	Hauraki	
	Home Enterprises	Parking required for the dwelling, 1 space shall be provided for each non- resident employee, plus 1 for visitors.	1 per non-resident worker.	1 per non-resident employee, plus a minimum 1 where customers are permitted on the site		1 per non-resident employee, plus 1 where customers permitted on site. (+required residential parking).		1 for home occupations where retail sales permitted. 1 for any non-resident employee. (+parking required for the dwelling)	
	Laboratories, Research, Computer, Services			1 per 40m² GFA			1 per 50m² GFA.		
	Medical Service Premises, Health Centres, Industrial Health Centres **Private and Public Hospitals**	1 per 3 patients' bed spaces, plus 1 per resident medical practitioner/ staff employed, plus 1 per 2 other full-time staff, plus 1 per visiting medical practitioner present .	1 per 25m2 g.f.a. **Health Centres** 3 per specialist/professional/adviser whether part-time or full-time.	1 per 20m² GFA Hospital: 1 per 3 patient bed spaces, plus 1 per 2 employees	1 per 3 patient beds Plus 1 per resident medical practiti1r or pressional staff employed plus 1 per 2 other full-time staff employed plus 1 per 2 visiting medical practiti1rs Health Professional Rooms 1 per professional person employed Plus 1 per consulting room or surgery or interview room plus 1 per additional 40m2 GFA building	5 for the rooms for 1 consultant, plus 3 for the rooms for each subsequent consultant. Hospitals: 1 per 3 beds, plus 1 per 1.3 employees on the site.	1 per 20m² GFA. Hospitals: 1 per 3 licensed hospital beds in ward areas plus 5 per operating theatre plus 1 per 25m² GFA all areas not assessed as ward areas or operating theatres.	1 space per 20m² GFA.	

Table A1: District Plan Comparison

Category	Activity	Parking Standards							
		Manukau District Plan	Franklin District Plan	North Shore District Plan	Papakura District Plan	Rodney District Plan	Auckland City District Plan		Waitakere District Plan
							Isthmus	Hauraki	
	Medical and Analytical laboratories	1 for each pressional person employed, plus 1 per 2 assisting staff, plus 1 per public counter or treatment room.		1 per 50m² GFA					
	Offices	1 per 20m2 GFA for: areas open to the public and staff areas serving public; plus 1 per 40m2 GFA for areas not open to the public.	1 per 40m2 g.f.a.	Business 12 – Mixed Use Z1 Public service counters and related areas - 1:20m² GFA All other areas - 1:35m² GFA	1 per 20m2 GFA for areas open to the public Plus 1 per 40m2 GFA not open to the public	1 per 35m² GFA.	1 per 40m² GFA.	1 space per 50m² GFA.	
	Technical Services	1 per 40m2 GFA.							
	Towing Services			1 per 200m² site area, plus 1 per employee			1 per employee plus 1 space per 200m² site area.		
	Show Home Sites **Breeding and Boarding**					3 spaces for 1 or 2 show-homes, plus 1 additional space for each additional show home.			
Community Services	**Child Care Premises**	1 per staff member employed, plus 1 per ten children where there is parental participation daily operation facility, plus a suitable drop f area.	1 per 4 pupils/children the centre is licensed for.	1 per 10 children the facility is designed to accommodate, plus 1 per employee	1 per staff member, plus 1 per ten children where parental participation in daily operation , plus the greater either: A suitable drop-f area, OR 1 per ten children the facility designed to accommodate.		1 per member staff in attendance plus 1 per 10 children or people the facility is designed to accommodate.	1 space per ten children or people the facility is designed to care for. 1 space per 2 employees.	

Table A1: District Plan Comparison

Category	Activity	Parking Standards							
		Manukau District Plan	Franklin District Plan	North Shore District Plan	Papakura District Plan	Rodney District Plan	Auckland City District Plan		Waitakere District Plan
							Isthmus	Hauraki	
	Funeral Services	1 per 5 persons facility designed to accommodate	1 per 30m2 GFA plus (where chapel/ funeral service auditorium included) 1 per 10m2 chapel floor area	1 per 4 persons the facility designed to accommodate, plus 1 per employees		1 per 3 persons facility designed to accommodate plus 1 per 1.3 employees on site	1 per employee plus (where funeral services performed) 1 per 4 persons the facility designed to accommodate	1 per employee, plus (where funeral services are performed) 1 per 5 persons facility is designed to accommodate	
	Church and Church Halls	1 per 5 persons to be accommodated, minimum requirement applicable shall be the maximum requirement in respect such church or hall, whichever is the greater.		1 per 4 people that the main auditorium/ hall idesigned to accommodate,	1 per 10 persons the building is designed to accommodate.	1 per 3 persons the activity is designed to accommodate,	1 per 4.5m² floor area the auditorium the church or 1 per 4.5m² the total floor area all meeting rooms (whichever is the greater).	or for churches, 1 space per 4.5m^2 floor area the auditorium the church or 1 per 4.5m^2 the total floor area all meeting rooms (whichever is the greater).	
	Community Centres, Halls, and Houses	1 per 3.5 persons the building is designed to accommodate.	1 per 20m2 GFA plus 1 per 10m 2 GFA for floor areas over 400m2	1 per 5 people the facility is designed to accommodate	1 per 2 persons the facility is designed to accommodate			1 space per 4 people a public hall or recreation facility is designed to have capacity for,	
	Community Welfare Services	1 per 2 persons employed, plus 1 per interview room or booth used by visitors.		1 per 40m² GFA			1 for each 20m² GFA.		
	Conference Centres	1 per 3.5 persons the building is designed to accommodate.		1 per 4 people the facility is designed to accommodate					

Table A1: District Plan Comparison

Category	Activity	Parking Standards							
		Manukau District Plan	Franklin District Plan	North Shore District Plan	Papakura District Plan	Rodney District Plan	Auckland City District Plan		Waitakere District Plan
							Isthmus	Hauraki	
	Daycare facilities for Elderly and Disabled					1 per 5 clients, to be available for the setting down and picking up clients; plus 1 per 1.3 employees on the site.			
	Emergency Services					1 per employee on the site; plus 1 per emergency service appliance based at the facility.			
	Marae			1 per 4 persons accommodated			1 per 4 people the facility is designed to accommodate.		
	Places of Assembly (except Churches)					1 per 3 persons the activity is designed to accommodate; plus 1 per 1.3 employees	1 per 4 people a community/recreation facility designed to accommodate,		
	Veterinary Services		3 per 75m2 g.f.a	1 for each practising room, plus 1 per employee Video Hire Outlet 1 per 16m² GFA					
	Wharekai (dining halls) and Wharenui (meeting houses)	1 per 5 persons the building is designed to accommodate, provided that the parking requirement shall only be assessed on the 'wharekai' in a marae.							

Table A1: District Plan Comparison

Category	Activity	Parking Standards							
		Manukau District Plan	Franklin District Plan	North Shore District Plan	Papakura District Plan	Rodney District Plan	Auckland City District Plan		Waitakere District Plan
							Isthmus	Hauraki	
Other	**Network Utilities**	1 per person employed on site, or an area on site sufficient to accommodate a service vehicle for unstaffed sites over 100m2.			1 per employee on sites exceeding 200m2	1 per employee on the site (no parking space required for un-staffed sites and activities)			
	Port and Harbour Facilities						1 per 2 persons intended to be working in or at the facility at any 1 time.		
	Temporary Activities	Temporary activities involving the assembly 100 or more public (educational, religious, social, cultural, sporting or community activities and events, indoor or outdoor recreation and entertainment) 1 per 3.5 persons Temporary Activities involving the following operations: — exhibitions and auctions — markets and stalls 1 per 15m2 GFA building or 3.5 per stall provided.							
	Transport Depot						1 per 60m² GFA plus 1 space.		

Table A1: District Plan Comparison

Category	Activity	Parking Standards							
		Manukau District Plan	Franklin District Plan	North Shore District Plan	Papakura District Plan	Rodney District Plan	Auckland City District Plan		Waitakere District Plan
							Isthmus	Hauraki	
	Any other activity not specified	To be determined having regard to the characteristics and circumstances the particular proposed activity							1 per 30 m^2 GFA in the Community Environment 1 per 35 m^2 GFA in the Working Environment (Different rules for new Lynn and Henderson as above)

APPENDIX B District Plan Loading Rates

Table A3: Loading Provision Standards

Category	Activity	Loading Standards								
		Manukau District Plan	Franklin District Plan	North Shore District Plan	Papakura District Plan	Rodney District Plan	Auckland City District Plan			Waitakere District Plan
							Isthmus	Hauraki	Central	
Loading	**Industrial, warehouse, Wholesale, Retail and goods handling activities**	0-5000 m^2 = 1 space 5,001 – 10,000 m^2 = 2 spaces >10,000 m^2 = 2 + 1 for every additional 5,000m2		0-5000 m^2 = 1 space 5,001 – 10,000 m^2 = 2 spaces >10,000 m^2 = 3 + 1 for every additional 7,500m2	0-5000 m^2 = 1 space 5,001 – 10,000 m^2 = 2 spaces >10,000 m^2 = 2 + 1 for every additional 5,000m2	0-2,500 m^2 = 1 space 2,501 - 5,000 m^2 = 2 spaces >5,000 m^2 = 3 + 1 for every additional 5,000m^2	0-5000 m^2 = 1 space 5,001 – 10,000 m^2 = 2 spaces >10,000 m^2 = 3 + 1 for every additional 7,500m2	0-5000 m^2 = 1 space 5,001 – 10,000 m^2 = 2 spaces >10,000 m^2 = 2 + 1 for every additional 5,000m2	0-5000 m^2 = 1 space 5,001 – 10,000 m^2 = 2 spaces >10,000 m^2 = 3 + 1 for every additional 7,500m2	1 per 5000 m^2 in the Working Environment 1 per 500 m^2 in the Community Environment In town centres: 0-5000 m^2 = 1 space 5,001 – 10,000 m^2 = 2 spaces >10,000 m^2 = 3 + 1 for every additional 7,500m2
	Offices, Hotels, Hospitals and non goods handling activities	0-20,000 m^2 = 1 space 20,001 – 50,000 m^2 = 2 spaces >50,000 m^2 = 2 + 1 for every additional 25,000m^2		0-20,000 m^2 = 1 space 20,001 – 50,000 m^2 = 2 spaces (see Plan Change 37)	0-20,000 m^2 = 1 space 20,001 – 50,000 m^2 = 2 spaces >50,000 m^2 = 2 + 1 for every additional 25,000m^2	0-10,000 m^2 = 1 space > 10,000 m^2 = 2 spaces 1 for every additional 10,000 m^2	0-20,000 m^2 = 1 space 20,001 – 50,000 m^2 = 2 spaces >50,000 m^2 = 2 + 1 for every additional 40,000 m^2	0-20,000 m^2 = 1 space 20,001 – 50,000 m^2 = 2 spaces >50,000 m^2 = 2 + 1 for every additional 25,000m^2	0-20,000 m^2 = 1 space 20,001 – 50,000 m^2 = 2 spaces (one on street) Over 50,000 m2 = 3 plus 1 per 37,000 m^2 (one on-street)	1 per 5000 m^2 in the Working Environment 1 per 500 m^2 in the Community Environment In town centres: 0-20,000 m^2 = 1 space 20,001 – 50,000 m^2 = 2 spaces >50,000 m^2 = 2 + 1 for every additional 40,000 m^2

Table A3: Loading Provision Standards

Category	Activity	Loading Standards								
		Manukau District Plan	Franklin District Plan	North Shore District Plan	Papakura District Plan	Rodney District Plan	Auckland City District Plan			Waitakere District Plan
							Isthmus	Hauraki	Central	
	Service Station and Truck Stops	None provided as long as it is demonstrated that there is adequate space at the service station forecourt for loading activities								
	Sites within Business centres		One space per site, but not less than two spaces for any site having a total building GFA of over 1500 m^2							
	Sites Outside of Business Centres		One space per site, but not less than two spaces for any site having a total building GFA of over 1000 m^2							
Bus and Coach Spaces	**Hotels and Serviced Apartments**								1 for every 200 rooms	
	Entertainment facilities								1 for every 450 seating capacity	

APPENDIX C CPMP Guidelines

APPENDIX D Industry Standard Rates

Table A3: Comparison of Standards

Category	Activity	Parking Standards			
		Guide to Traffic Generating Developments (RTA)	**NZTA Trips and Parking Related to Land Use Report**	**New Zealand Trips and Parking Data Base (NZPDB)**	**Institute of Transportation Engineers Manual (ITE)**
Residential	**Dwelling Houses, Single Family Detached Housing**	1-2 per household unit	2.8 per household unit (based on 85% surveyed satisfaction)		2 per household unit
	Residential Condominium/Townhouse				0.98 per household unit
	Rental Townhouse				1.5 per household unit
	Medium Density Residential Flat Buildings, Low/Mid-Rise Apartment	1 per household unit, plus an additional 1 space per each 5 x 2 bedroom unit or part thereof. An additional space per each 2 x 3 or more bedroom unit or part thereof	1.8 per household unit (based on 85% surveyed satisfaction)		1.4 per household unit
	High Density Residential Flat Buildings, High-Rise Apartment	Metropolitan Regional Centres: 0.4 spaces per 1 bedroom unit 0.7 spaces per 2 bedroom unit 1.2 spaces per 3 bedroom unit 1.0 space per 7 units (visitor parking) Metropolitan Sub-Regional Centres: 0.6 spaces per 1 bedroom unit 0.9 spaces per 2 bedroom unit 1.4 spaces per 3 bedroom unit 1.0 space per 5 units (visitor parking)			1.95 per household unit
	Housing for Aged and Disabled Persons, resident funded	2 per 3 units plus 1 space per 5 units (visitor parking)			
	Housing for Aged and Disabled Persons, Hostels, Nursing and Convalescent Homes	1 space per 10 beds (visitor parking) plus 1 space per 2 employees plus 1 space per ambulance			

Table A3: Comparison of Standards

Category	Activity	Parking Standards			
		Guide to Traffic Generating Developments (RTA)	**NZTA Trips and Parking Related to Land Use Report**	**New Zealand Trips and Parking Data Base (NZPDB)**	**Institute of Transportation Engineers Manual (ITE)**
	Housing for Aged and Disabled Persons, Subsidised Development	Self-contained units: 1 space per 10 units plus 1 space per 10 units(visitor parking) Hostels, Nursing and Convalescent Homes: 1 space per 10 beds (visitor parking) plus 1 space per 2 employees plus 1 space per ambulance			Senior Adult Housing – Attached: 1.2 and 1.4 per household unit (based on two study sites) Congregate Care Facility: 0.5 per household unit Assisted Living: 0.5 per household unit
	Hotel	1 per 5 rooms for a 5 star international hotel and 1 per 4 bedrooms for 3 and 4 star hotels	11 per 100m² GFA (based on 85% surveyed satisfaction)		1.3 per room
	Motel (without Restaurant)		1.3 per 100m² GFA or 1.0 per unit (based on 85% surveyed satisfaction)		1.1 per room
	All Suites Hotel				1.1 per room
	Resort Hotel				1.2 per room
Retail	**Shopping Centres**	0 – 10,000 GLFA: 6.1 per 100m² GLFA 10,000-20,000 GLFA: 5.6 per 100m² GLFA 20,000-30,000 GLFA: 4.3 per 100m² GLFA Over 30,000 GLFA: 4.1 per 100m² GLFA	0 – 4,000 GFA: 8.0 per 100m² GFA 4,001-10,000 GFA: 6.5 per 100m² GFA Over 10,001 GFA: 5.4 per 100m² GFA (based on 85% surveyed satisfaction)	0.9 – 7.2 per 100m² GLFA with an average of 3.7 per 100m² GLFA	0 – 9,290 GLFA: 4.4-4.7 per 100m² GLFA 9,290 – 37,160 GLFA: 5.7 per 100m² GLFA 37,160 – 74,320 GLFA: 6.6 per 100m² GLFA Over 74,320 GLFA: 5.5 per 100m² GLFA
	Service Stations and Convenience Stores	6 per work bay plus 5 per 100m² GFA (retail, if provided) plus 15 per 100m² GFA or 1 per 3 seats, whichever is greater (restaurant, if provided)	5 per 100m² GFA (based on 50% surveyed satisfaction)		5.7 per 100m² GFA
	Supermarket		7.5 per 100m² GFA (based on 85% surveyed satisfaction)	4.5 – 6.2 per 100m² GLFA with an average of 5.1 per 100m² GLFA	7.2 per 100m² GFA at suburban sites 2.3 per 100m² GFA at rural sites 3.2 per 100m² GFA at urban sites
	Drive-In Liquor Stores		3.0 per 100m² GFA (based on 85% surveyed satisfaction)		7.8 per 100m² GFA

Table A3: Comparison of Standards

Category	Activity	Parking Standards			
		Guide to Traffic Generating Developments (RTA)	**NZTA Trips and Parking Related to Land Use Report**	**New Zealand Trips and Parking Data Base (NZPDB)**	**Institute of Transportation Engineers Manual (ITE)**
	Roadside Stalls	A minimum 4 off-street parking is recommended	8.5 per 100m² GFA (based on 85% surveyed satisfaction)		
	Motor Showrooms	0.75 per 100m² site area			
	Car Tyre Retail Outlets	3 per 100m² GFA or 3 per work bay, whichever is greater			
	Bulky Goods Retail Stores		3.0 per 100m² GFA (based on 85% surveyed satisfaction)		
	Markets	2 – 2.5 per stall			
	Video Stores	6.1 per 100m² GFA			8.1 per 100m² GFA
	Restaurants, High-Turnover (Sit-Down) Restaurant	15 per 100m² GFA or 1 space per 3 seats	13.5 per 100m² GFA or 1 per 2 seats (based on 85% surveyed satisfaction)		Family restaurant: 15.4 per 100m² GFA and 0.53 per seat Restaurant with a bar or lounge: 18.6 per 100m² GFA or 0.53 per seat
	Quality Restaurant				20.8 per 100m² GFA or 0.52 per seat
	Drive In Fast Food Outlets	12 per 100m² GFA with no on-site seating or no drive through facilities 12 per 100m² GFA or the greater of 1 per 5 seats (both internal and external seating), or 1 per 2 seats (internal seating) with on site seating but no drive through facilities 1 per 2 seats (internal), or 1 per 3 seats (internal and external seating) with on site seating and drive through facilities	11.6 per 100m² GFA or 1 per 2 seats (based on 85% surveyed satisfaction)		Fast food restaurant without drive-though: 22.8 per 100m² GFA Fast food restaurant with drive-though: 16.5 per 100m² GFA or 0.60 per seat
	General Retail			0.8 – 4.1 per 100m² GLFA with an average of 2.2 per 100m² GLFA	
	Large Format Retail			0.9 – 3.7 per 100m² GLFA with an average of 2.0 per 100m² GLFA	
	Free Standing Discount Store				5.4 per 100m² GFA
	Hardware/Paint Store				7.2 per 100m² GFA

Table A3: Comparison of Standards

Category	Activity	Parking Standards			
		Guide to Traffic Generating Developments (RTA)	NZTA Trips and Parking Related to Land Use Report	New Zealand Trips and Parking Data Base (NZPDB)	Institute of Transportation Engineers Manual (ITE)
	Tire Store				5.4 per 100m² GFA
	Convenience Market (Open 24 Hours)				5.7 per 100m² GFA
	Discount Supermarket				7.4 per 100m² GFA
	Discount Club				5.4 per 100m² GFA
	Sporting Goods Superstore				5.3 per 100m² GFA and 5 per employee
	Home Improvement Superstore				5.3 per 100m² GFA
	Electronics Superstore				2.5 per 100m² GFA
	Toy/Children's Superstore				2.1 per 100m² GFA
	Pet Supply Superstore				4.4 per 100m² GFA
	Book Superstore				1.2 per 100m² GFA
	Apparel Store				6.8 and 21.0 per 100m² GFA (based on 2 study sites)
	Pharmacy/Drugstore without Drive Through Window				5.9 per 100m² GFA and 10.8 per employee
	Furniture Store				2.3 per 100m² GFA and 3.5 per employee
	Carpet Store				4.2 per 100m² GFA and 6.3 per employee
	Office Supply Superstore				1.3 per 100m² GFA
Entertainment and Recreational	**Sports and Recreational Facilities**	Squash Courts: 3 per court Tennis Courts: 3 per court Bowling Courts: 3 per alley Bowling greens: 30 for first green and 15 for each additional green			Tennis Courts: 6 per court Racquet/Tennis Club: 3.6 per court Bowling Alley: 5.6 per lane Roller Skating Rink: 6.2 per 100m² GFA Ice Skating Rink: 4.2 per 100m² GFA

Table A3: Comparison of Standards

Category	Activity	Parking Standards			
		Guide to Traffic Generating Developments (RTA)	**NZTA Trips and Parking Related to Land Use Report**	**New Zealand Trips and Parking Data Base (NZPDB)**	**Institute of Transportation Engineers Manual (ITE)**
	Gymnasiums	Metropolitan Regional Centres: 3.0 per 100m² GFA if in close proximity to rail/bus services Metropolitan sub-regional areas: Minimum provision: 4.5 per 100m² GFA Desirable provision: 7.5 per 100m² GFA	7.0 per 100m² GFA (based on 85% surveyed satisfaction)		6.4 per 100m² GFA and 0.15 spaces per member
	Marinas	0.6 per wet berth 0.2 per dry storage berth 0.2 per swing mooring 0.5 per marina employee			0.27, 0.35 and 0.59 per berth on a week day, Saturday and Sunday respectively
	Caravan Parks	1 for each caravan site			
	City Park				0.37 per 100m² area
	Water Slide Park				0.30 per 100m² area
	Golf Course				12 per hole
	Multipurpose Recreational Facility				2.7 per hole, 17.2 per 100m² GFA and 0.59 per 100m² area
	Billiard Hall				6.9 per 100m² GFA and 3.0 per billiard table
	Adult Cabaret				5.2 and 5.3 per 100m² GFA (based on 2 study sites)
	Live Theatre				0.33 per seat
	Movie Theatre with Matinee				0.27 per theatre seat (based on 1 study site)
	Snow Ski Area				0.05 per 100m² area and 0.4 per daily lift ticket sold
	Casino/Video Lottery Establishment				15.2 per 100m² GFA and 0.8 per gaming position
	Athletic Club				4.2 per 100m² GFA

Table A3: Comparison of Standards

Category	Activity	Parking Standards			
		Guide to Traffic Generating Developments (RTA)	**NZTA Trips and Parking Related to Land Use Report**	**New Zealand Trips and Parking Data Base (NZPDB)**	**Institute of Transportation Engineers Manual (ITE)**
	Recreational Community Centre				3.2 per 100m² GFA
Industrial	**Factories , Manufacturing**	1.3 per 100m² GFA	2.5 per 100m² GFA (based on 85% surveyed satisfaction)		1.4 per 100m² GFA and 1.3 per employee
	Warehouses, Storage/Warehouse	1 per 300m² GFA		0.2 – 3.3 per 100m² GLFA with an average of 1.0 per 100m² GLFA	0.54 per 100m² GFA and 1.3 per employee
	Plant Nurseries	0.5 per 100m² site area, minimum of 15 spaces	1.5 per 100m² GFA retail display area (based on 85% surveyed satisfaction)		
	General Light Industrial				1.2 per 100m² GFA and 1.3 per employee
	General Industrial			0.1 – 3.8 per 100m² GLFA with an average of 1.2 per 100m² GLFA	
	Industrial Park, Business Parks	Minimum 1.5 per 100m² GLFA, plus 1.8 per 100m² GLFA for Showrooms, plus 1.2 per 100m² GLFA for Warehouse area			1.7 per 100m² GFA and 1.2 per employee
Health and Community Services	**Hospital**		2.5 per bed (based on 85% surveyed satisfaction)		4.7 per bed and 0.82 per employee
	Private Hospitals	Peak Parking Accumulation (PPA) = -19.56 + 0.85 x Number of Beds + 0.27 x Average Staff per Weekday Day Shift (ASDS) When ASDS is unknown, PPA = -26.52 + 1.18 x Number of Beds			
	Nursing Home				1.6 per 100m² GFA and 1.3 per employee and 0.45 per bed
	Professional Consulting Rooms, Clinic, Medical Centres	3 per surgery	6.0 per 100m² GFA and 3.0 per health professional (based on 85% surveyed satisfaction)		5.9 per 100m² GFA (based on 1 study site)
	Child Care Centres	1 for every 4 children in attendance			

Table A3: Comparison of Standards

Category	Activity	Parking Standards			
		Guide to Traffic Generating Developments (RTA)	**NZTA Trips and Parking Related to Land Use Report**	**New Zealand Trips and Parking Data Base (NZPDB)**	**Institute of Transportation Engineers Manual (ITE)**
	Animal Hospital/Veterinary Clinic				2.5 per 100m² GFA and 2.0 per employee
Education	**Community Use School Facilities**				
	Educational Facilities for adults (Including tertiary)				
	Educational Facilities				
Offices and Services	**Office Building**		2.8 per 100m² GFA (based on 85% surveyed satisfaction)	1.9 – 6.2 per 100m² GFA with an average of 3.2 per 100m² GFA	4.3 per 100m² GFA and 1.1 per employee
	Medical-Dental Office Building				4.3 per 100m² GFA
	Government Office Building				3.6 per 100m² GFA and 0.85 per employee
	Judicial Complex				4.4 per 100m² GFA and 2.0 per employee
	Dry Cleaners				3.9 per 100m² GFA
	Walk-In Bank				3.7 per 100m² GFA and 1.3 per employee
	Drive-In Bank				Suburban: 7.5 per 100m² GFA Urban: 4.4 per 100m² GFA
Road Transport Facilities	**Road Transport Terminals**	1 per each vehicle present at the time of peak vehicle accumulation on the site			
	Container Depots	Off street parking and visitor parking must satisfy the peak demand, as determined by surveys of similar existing developments			

Table A3: Comparison of Standards

Category	Activity	Parking Standards			
		Guide to Traffic Generating Developments (RTA)	**NZTA Trips and Parking Related to Land Use Report**	**New Zealand Trips and Parking Data Base (NZPDB)**	**Institute of Transportation Engineers Manual (ITE)**
	Truck Stops	If overnight accommodation is provided: 1 per each motel unit plus 1 per 2 employees If public restaurant is present, plus 15 per 100m² GFA or 1 per 3 seats, whichever is greater. 50% of the overnight accommodation and restaurant parking spaces should be truck parking spaces			
	Commercial Airport				A peak parking demand of 0.27 vehicles per daily enplanement has been observed at 1 study site
	Light Rail Transit Station with Parking				280 and 150 per 1,000 daily boardings at the suburban and urban stations respectively

APPENDIX E Cycle Parking

Table A5: Cycle Parking Provision Rules

Category	Activity	Cycling Standards							
		ARTA	**Austroads**	**Christchurch City Council**	**Auckland City - Newmarket**	**Sydney**	**Melbourne**	**Portland, Oregon**	**San Francisco**
Cycling	**Shopping Malls/Retail Areas**	1 Type 2 space for each ten car parking spaces required by the District plan One Type 4 space per ten to fifteen employees	1 employee space per 300 m2 1 visitor space per 500 m2 over 1000 m2	1 space per 200 m2 GLFA	All activities a minimum of one space per 800 m2 GFA with no maximum	Residents/employees: 1 per 200m^2 sales GFA Visitors: 1 per 300m^2 sales GFA (approximately one third for bulky goods retailing)	Residents/employees: 1 per 300m^2 GLFA Visitors: 1 per 500m^2 GLFA	Long term: 1 per 12,000ft^2 net building area (2 minimum) Short term: 1 per 5,000ft^2 net building area (2 minimum)	3 (25,000-50,000ft^2 floor area) 6 (50,000-100,000ft^2) 12 (>100,000ft^2)
	Shops and Convenience Stores					Residents/employees: 1 per 25m^2 public area Visitors: 2 plus 1 per 100m^2 over 100m^2 GFA	Residents/employees: 1 per 600m^2 GLFA (if exceeding 1,000m^2) Visitors: 1 per 500m2 GLFA (if exceeding 1,000m^2)		3 (25,000-50,000ft^2 floor area) 6 (50,000-100,000ft^2) 12 (>100,000ft^2)
	Cafes		2 visitor spaces 1 per 25 m2 long term space	1 space per 100 m2					3 (25,000-50,000ft^2 floor area) 6 (50,000-100,000ft^2) 12 (>100,000ft^2)
	Restaurants					Residents/employees: 1 per 100m^2 public area Visitors: 2 plus 1 per 100m^2 over 100m^2 GFA	Residents/employees: 1 per 100m^2 public floor area Visitors: 2 plus 1 per 200m^2 public floor area (if exceeding 400m^2)		3 (25,000-50,000ft^2 floor area) 6 (50,000-100,000ft^2) 12 (>100,000ft^2)
	Convenience Restaurants						Residents/employees: 1 per 25m^2 of public floor area Visitors: 2		3 (25,000-50,000ft^2 floor area) 6 (50,000-100,000ft^2) 12 (>100,000ft^2)
	Take-away Food Premises						Residents/employees: 1 per 100m^2 NFA Visitors: 1 per 50m^2 NFA		3 (25,000-50,000ft^2 floor area) 6 (50,000-100,000ft^2) 12 (>100,000ft^2)

Table A5: Cycle Parking Provision Rules

Category	Activity	Cycling Standards							
		ARTA	**Austroads**	**Christchurch City Council**	**Auckland City - Newmarket**	**Sydney**	**Melbourne**	**Portland, Oregon**	**San Francisco**
	Pubs					Residents/employees: 1 per 25m^2 bar GFA and 1 per 100m^2 lounge/beer garden Visitors: 1 per 25m^2 bar GFA and 1 per 40m^2 lounge/beer garden GFA			3 (25,000-50,000ft^2 floor area) 6 (50,000-100,000ft^2) 12 (>100,000ft^2)
	Child Care Centre					Residents/employees: 1 per 10 staff Visitors: 2 per centre		Long term: 1 per 10,000ft^2 net building area, or per CU or IMP review (2 minimum)	
	Primary and Intermediate Schools	1 Type 1 space per 500 students and staff at the school 1 Type 4 space per 10-15 staff	1 per 5 pupils over year 4	1 space per 5 pupils			Residents/employees: 1 per 20 employees Visitors: 1 per 5 pupils over 4 years old	Long term: 2 per classroom, or per CU or IMP review	
	Secondary School	1 Type 1 space per 500 students and staff at the school 1 Type 4 space per 10 equivalent full time students and one per 10-15 employees	1 per 5 pupils	3 spaces per 4 pupils			Residents/employees: 1 per 20 employees Visitors: 1 per 5 pupils	Long term: 4 per classroom, or per CU or IMP review	3 (10,000-20,000ft^2 floor area) 6 (20,000-50,000ft^2) 12 (>50,000ft^2)
	Tertiary Education Facility	1 Type 1 space per 800 m2 of office space 1 Type 3 space per 10-20 students 1 Type 4 space per 10-15 employees	1 fully secure space per 100 full time students 1 medium secure space per 100 full time students	25 spaces per 100 full time employees/students		Residents/employees: 1 per 10 staff and 1 per 10 students	Residents/employees: 1 per 20 employees Visitors: 1 per 20 students	Long term: 1 per 20,000ft^2 net building area, or per CU or IMP review (2 minimum) Short term: 1 per 10,000ft^2 net building area, or per CU or IMP review (2 minimum)	3 (10,000-20,000ft^2 floor area) 6 (20,000-50,000ft^2) 12 (>50,000ft^2)

Table A5: Cycle Parking Provision Rules

Category	Activity	Cycling Standards							
		ARTA	**Austroads**	**Christchurch City Council**	**Auckland City - Newmarket**	**Sydney**	**Melbourne**	**Portland, Oregon**	**San Francisco**
	Residential Unit	1 Type 1 space per 20 units 1 Type 4 space per unit	1 per 3 flats 1 visitor space per 12 flats			Residents/employees: 1 per dwelling Visitors: 1 per 10 dwellings	Residents/employees: 1 per 5 dwellings (developments over 3 storeys) Visitors: 1 per 10 dwellings (developments over 3 storeys)	Long term: 1.5 per unit in Central City, 1.1 per unit elsewhere Short term: 1 per 20 units (2 minimum)	1 Class 1 space per 2 dwellings (first 50 dwellings) plus 1 Class 1 space per 4 dwellings (dwellings above 50)
	Student Hostel/Accommodation			1 space per 4 beds		Residents/employees: 1 per 6 rooms Visitors: 1 per 6 rooms		Long term: 1 per 8 residents (dormitories) 1 per 20 residents (2 minimum) (elsewhere)	1 Class 1 space per 3 bedrooms
	Seniors Housing/Nursing Homes					Residents/employees: 1 per 10 staff and 1 per 20 self-contained dwellings Visitors: 1 per 30 dwellings	Residents/employees: 1 per 7 beds Visitors: 1 per 60 beds		None required
	Tourist and Visitor Accommodation					Residents/employees: 1 per 4 staff Visitors: 1 per 20 rooms (hotels) or 1 per 10 beds (backpackers)	Residents/employees: 1 per $25m^2$ of public bar floor area plus 1 per $100m^2$ of public lounge floor area (hotel), 1 per 40 rooms (motel) Visitors: 1 per $25m^2$ of public bar floor area plus 1 per $100m^2$ of public lounge floor area (hotel)	Long term: 1 per 20 rooms (2 minimum) Short term: 1 per 20 rentable rooms (2 minimum)	
	Office	1 Type 1 space per 800 m2 of office space 1 Type 4 space per 10-15 employees	1 per 750 m2 over 1000 m2 1 fully secure space per 200 m2	1 space per 200 m2			Residents/employees: 1 per $300m^2$ of NFA if NFA exceeds $1000m^2$ Visitors: 1 per $1000m^2$ of NFA if NFA exceeds $1000m^2$	Long term: 1 per $10,000ft^2$ net building area (2 minimum) Short term: 1 per $40,000ft^2$ net building area (2 minimum)	3 (10,000-20,000ft^2 floor area) 6 (20,000-50,000ft^2) 12 (>50,000ft^2)

Table A5: Cycle Parking Provision Rules

Category	Activity	Cycling Standards							
		ARTA	**Austroads**	**Christchurch City Council**	**Auckland City - Newmarket**	**Sydney**	**Melbourne**	**Portland, Oregon**	**San Francisco**
	Industrial	1 Type 4 space per 10-15 employees	1 per 1000 m2	1 space per 300 m2		Residents/employees: 1 per 10 staff		Long term: 1 per 15,000ft^2 (manufacturing) or 40,000ft^2 (distribution) net building area (2 minimum)	3 (10,000-20,000ft^2 floor area) 6 (20,000-50,000ft^2) 12 (>50,000ft^2)
	Service Industries						Residents/employees: 1 per 800m^2 NFA		3 (10,000-20,000ft^2 floor area) 6 (20,000-50,000ft^2) 12 (>50,000ft^2)
	Recreation Facilities	1 Type 2 space per 10-20 visitors 1 Type 4 space per 5 employees	1 per 200 m2 short term 1 long term space per 4 employees			Residents/employees: 1 per 10 staff (library/ pool), 1 per 1000m^2 GFA (gallery/museum) Visitors: 2 per 20m^2 pool area, 2 plus 1 per 200m^2 GFA (library), 1 per 200m^2 GFA (gallery/museum)	Residents/employees: 1 per 500m^2 NFA Visitors: 4 plus 2 per 200m^2 NFA	Long term: 1 per 20 car parking spaces (10 minimum)	
	Hospitals and Medical Centres	1 Type 2 space per 50 visitors 1 Type 4 space per 10-15 employees	1 visitor space per 30 beds 1 long term space per 15 beds	1 space per 3 beds		Residents/employees: 1 per 5 practitioners Visitors:1 per 200m^2 GFA	Residents/employees: 1 per 15 beds Visitors: 1 per 30 beds	Long term: 1 per 70,000ft^2 net building area, or per CU or IMP review (2 minimum) Short term: 1 per 40,000ft^2 net building area, or per CU or IMP review (2 minimum)	3 (10,000-20,000ft^2 floor area) 6 (20,000-50,000ft^2) 12 (>50,000ft^2)
	Consulting Room		1 visitor space per 4 practitioners 1 long term space per 8 practitioners			Residents/employees: 1 per 5 professionals Visitors: 1 per 200m^2 GFA			3 (10,000-20,000ft^2 floor area) 6 (20,000-50,000ft^2) 12 (>50,000ft^2)

Table A5: Cycle Parking Provision Rules

Category	Activity	Cycling Standards							
		ARTA	**Austroads**	**Christchurch City Council**	**Auckland City - Newmarket**	**Sydney**	**Melbourne**	**Portland, Oregon**	**San Francisco**
	Places of Assembly/Worship	1 Type 2 space per 50 visitors 1 Type 3 space per 50 visitors 1 Type 4 space per 10-15 employees				Visitors: Greater of 1 per 15 seats or 1 per 40m^2 GFA	Residents/employees: 1 per 1500m^2 NFA Visitors: 2 plus 1 per 1500m^2 NFA	Long term: 1 per 4,000ft^2 net building area (2 minimum) Short term: 1 per 2,000ft^2 net building area (2 minimum)	
	Places of Entertainment			1 space per 50 m2 public floor area			Visitors: 2 plus 1 per 50m^2 NFA		
	Major Sports Grounds		1 per 250 spectators 1 long term space per 1500 spectators				Residents/employees: 1 per 1500 spectator places Visitors: 1 per 250 spectator places	Long term: 1 per 40 seats or per CU review (10 minimum)	
	Public Gatherings, Outdoor Concerts	1 Type 5 space per 50-200 people (per day or event) predicted to attend the event depending on the accessibility of the venue					Residents/employees: 1 per 1500 spectator places Visitors: 1 per 250 spectator places	Long term: 1 per 40 seats or per CU review (10 minimum)	
	Town Centres	Type 1 bicycle parking stands located every 50 m Type 2 in the existing car parks							
	Parking Building							Long term: 1 per 20 car parking spaces (10 minimum)	1 per 20 parking spaces (up to 500 spaces), 1 per 40 parking spaces (over 500 spaces) (6 minimum)

Table A5: Cycle Parking Provision Rules

Category	Activity	Cycling Standards							
		ARTA	**Austroads**	**Christchurch City Council**	**Auckland City - Newmarket**	**Sydney**	**Melbourne**	**Portland, Oregon**	**San Francisco**
	Community Service							Long term: 1 per 10,000ft^2 net building area (2 minimum) Short term: 1 per 10,000ft^2 net building area (2 minimum)	
	Transport Facilities							Long term: 8 (rail stations & transit centres), 5 per acre (park & ride, 10 minimum)	
	Council Owned Buildings								Complex scale of requirements based on number of employees, or in the case of libraries & museums etc, the number of patrons Separate scales for Class 1 and 2 parking types

APPENDIX F Consultation Summary

Table A5: Parking and Loading Workshop Feedback Summary

Issue	Comments
General Feedback	· The UP needs to be aspirational, as it may be outdated by the time it is published, and it is not known how frequently it will be reviewed. It will also serve as a model for all other Councils within New Zealand. It must aim to be ahead of the current standards, in order to remain relevant. As such, many of the proposals represent the *bare minimum* for the UP to do so, and in reality the UP must go *considerably further* than this. The removal of minimum parking rates entirely was raised as an example of going beyond the minimum expected and setting a new benchmark. · Existing rules do nothing to encourage reductions in reliance upon single occupancy vehicles · Parking rules need to compliment other TDM measures in the plan · UP must be clear about its parking objectives. Perhaps include target mode splits · UP needs to provide flexibility for discretion, without ambiguity · UP needs to be clear about if/when parking on the street is acceptable · The focus of the UP needs to be on reducing commuter parking, and prioritising customer/visitor parking in town centres · Any reduction in parking resulting from the UP needs to be offset by PT and active mode provisions · Parking rules need to be included in the Plan, not within a separate document. They should be aimed at the layperson, not experts · The need to consider carefully the different regions of Auckland was raised - The Hauraki Gulf Islands, Franklin and Rodney for example, where the public transportation network doesn't exist to support proposed parking maximums

Table A5: Parking and Loading Workshop Feedback Summary

Issue	Comments
Parking Maximums – General	· Maximums have the advantage of leaving parking numbers up the market/developer · Must ensure that policy doesn't discourage or hinder development within centres. Perhaps incentivise development close to PT nodes? · Consider applying maximum parking rates to all office developments Auckland-wide, to discourage developments on periphery of centres/undesirable locations. This would encourage office developments in locations with good PT · Maximums reduce costs for the developer, while increasing costs for AT. How can these costs be recovered? · Stronger guidance required from AT and AC on how AT will manage on street parking demand · Perhaps apply minimum rates to visitor parking, maximums to staff, and maximums overall · Consider turning existing minimum rates into maximums, reducing these in areas with good PT · Consider reducing the maximum rates over time · The onus should be on the developer to prove that they need the proposed number of parking spaces, rather than meeting a generic minimum requirement
Parking Maximums – Locations	· Location of 'centres' and 'corridors' currently lacks definition · Perhaps based on a public transport accessibility index, particularly if on QTN and RTN. This has the advantage of eliminating the need for Plan Changes, should PT improve to a particular area · Not all existing identified growth centres are the same; eg Newmarket vs Orewa. Albany cited as a centre where parking maximums may not have been suitable · Consider applying maximum rates within centres and reduced maximums across the remainder of the city · Consider transition areas around centres to soften impact · Consider imposing a maximum percentage of site area to be covered with car parking

Table A5: Parking and Loading Workshop Feedback Summary

Issue	Comments
Parking Minimums	· Existing ratios are out of date and generally considered too high. Restaurants, cafes and taverns were highlighted as particular examples of land uses for which existing ratios are excessive · Existing minimum ratios generally don't take into account accessibility by other modes · Again particularly for restaurants, cafes and taverns, leased parking is often obtained in order to avoid going through the consent process, but these leases are rarely maintained as the additional parking spaces aren't necessary for the business to operate · Perhaps set minimum parking rate at a proportion of the maximum rate · Ellerslie Office Park cited as an example where parking minimums are not adequate · Travel Demand Management (TDM) plans should be compulsory for developments that do not meet minimum parking requirements
Parking Rates	· Need evidential data supporting rates · Less critical for developments that undergo an ITA · TDB provides parking ratios for most activities – suggest the UP adopt similar standards · UP should refer to other standards/guidelines to be applied where the particular activity is not expressly covered. Mention should also be made of 'Best Practice' · Specific rates were offered for a number of land use types, such as churches, child care centres, etc · GFA rates are considered easier to apply but are perhaps a less accurate method of estimating parking demand, compared to those based on people/staff/occupants/visitors · Suggestions made for the UP to simplify the existing 141 land uses to just a small number of generic ratios, with discretion to consider guidelines, principals and outcomes. Descriptive approach not the way to go · Need UP to set up good evidential basis, so as not to be re-litigated at every major consent application · UP needs to distinguish between vertical development – ground floor retail requires a different parking rate than upper floor offices
Parking Management Strategies	· UP could better encourage shared parking · Mixed feedback was received about cash in lieu systems. Can the funds raised from this scheme go towards PT? · 'Mechanical parking garages' were highlighted as a possible means to reduce the land required to provide car parking spaces, and the use of these should perhaps be encouraged

Table A5: Parking and Loading Workshop Feedback Summary

Issue	Comments
Cycle Parking	· End of trip facilities key, but inappropriate to enforce these upon small developments. Are shared facilities between multiple developments possible? · Short and long term (visitor vs employee) cycle parking needs to be differentiated. The five types of cycle parking in ARTA's cycling document should be simplified to just two · Ratios need to be based on percentage of employees **and** visitors that are expected to cycle, rather than just on GFA · Cycle parking at temporary events needs consideration · Car parking deficits should be able to be offset by additional cycle facilities
Loading	· Discretion required when applying to small commercial developments · UP needs to consider shared spaces (loading zone off peak, parking during peak), or allowing on street loading off peak. The timing and scale of deliveries needs consideration · Loading spaces should be provided where the need is demonstrated, rather than by default · Loading space provision needs to be resilient – the use of the building may well change over time
Mobility Impaired Parking	· Suggestion made for mobility spaces to be included in general parking space requirement (as opposed to in addition to it) · UP needs to be clear about if/when mobility parking may be waived · Consistency sought with Building Act · Preference for on street mobility spaces for smaller developments to allow flexibility · Mobility spaces should be provided as a ratio of floor space/users, to prevent developers from avoiding it by reducing the number of car parking spaces
Motorcycle Parking	· How does 2% rate apply to developments with only a small number of car parking spaces? · UP needs flexibility in allowing motorcycles to park in car parking spaces. However, motorcycle parking needs to be included in the UP, if only to acknowledge that there are many different modes to be considered. Also, if ignored or marginalised, the result is motorcycles parking in inappropriate locations – footpaths, gardens, etc · A query was raised as to whether motorcycles are more desirable than cars as a mode, in terms of congestion, parking, noise, etc · Motorcycle parking was raised as a particular issue within the city centre

APPENDIX G Urban Centres And Corridors

This is a table of centres identified in the Draft Auckland Plan, with an indication of whether RTN or QTN services are planned to be provided to that centre by 2041 (compared with current RTN or QTN services). This table has been provided by Auckland Council and may be subject to change.

Growth centres currently on RTN / QTN
Growth centres added to RTN / QTN by 2021
* Non-growth centres

	RTN in 2011	QTN in 2011	RTN in 2022	QTN in 2022	RTN in 2041	QTN in 2041
International City Centre						
City Centre	√	√	√	√	√	√
City Fringe Centres						
Devonport*			√		√	
Ponsonby		√		√		√
Three Lamps		√		√		√
Karangahape Road		√		√		√
Parnell		√		√		√
Grafton		√		√		√
Metropolitan Centres						
Albany	√		√		√	
Manukau			√		√	
New Lynn	√		√		√	
Newmarket	√		√		√	
Papakura	√		√		√	
Sylvia Park	√		√		√	
Takapuna		√		√		√
Westgate / Massey Nth				√	√	√
Town Centres						
Avondale	√		√		√	
Botany			√		√	
Browns Bay				√		√
Drury			√		√	
Ellerslie	√		√		√	
Flatbush				√	√	√
Glen Eden	√		√		√	
Glen Innes	√		√		√	
Glenfield						
Henderson	√		√		√	
Highbury				√		√
Highland Park				√		√
Howick*				√		√
Hunters Corner				√		√
Mangere				√	√	√
Mangere Bridge				√	√	√
Manurewa	√		√		√	
Milford				√		√
Morningside	√		√		√	
Mt Albert	√		√		√	
Northcote						
Onehunga	√		√		√	

	RTN in 2011	*QTN in 2011*	*RTN in 2022*	*QTN in 2022*	*RTN in 2041*	*QTN in 2041*
Orewa						
Otahuhu				√		√
Otara				√		√
Pakuranga			√		√	
Panmure	√		√		√	
Papatoetoe	√		√		√	
Pt Chevalier		√		√		√
Remuera		√		√		√
Royal Oak		√		√		√
St Lukes				√		√
Silverdale					√	
Sunnynook	√		√		√	
Takanini	√		√		√	
Te Atatu Peninsula						
Three Kings		√		√		√
Whangaparaoa						
Local Centres						
Albany Village						
Balmoral		√		√		√
Beach Haven						
Belmont						
Blockhouse Bay						
Botany Junction				√	√	√
Chapel Road				√	√	√
Chatswood						
Clendon						
Dawson Road				√	√	√
Favona						
Glendene				√		√
Greenhithe					√	
Greenlane	√		√		√	
Greenlane / Manukau Road		√		√		√
Greville					√	
Grey Lynn*		√		√		√
Gulf Harbour						
Hauraki Corner						
Hobsonville					√	
Homai	√		√		√	
Kelston				√		√
Kepa Rd / Eastridge						
Kingsland*	√		√		√	
Lynfield						
Mairangi Bay						
Mangere East				√		√
Market Road	√		√		√	
Meadowbank	√		√		√	
Meadowlands				√		√
Middlemore	√		√		√	

	RTN in 2011	*QTN in 2011*	*RTN in 2022*	*QTN in 2022*	*RTN in 2041*	*QTN in 2041*
Mt Eden*		√		√		√
Mt Roskill		√		√		√
Mt Wellington				√		√
Mission Bay*		√		√		√
Northcross				√		√
Ormiston Road					√	
Ranui	√		√		√	
Sandringham				√		√
St Heliers*						
Stanmore Bay						
Stoddard					√	
Stonefields				√		√
Sturges	√		√		√	
Sunnyvale	√		√		√	
Swanson	√		√		√	
Te Atatu South				√		√
Te Mahia	√		√		√	
Titirangi*						
Torbay						
Unsworth Heights						
Valley Road*?		√		√		√
West Lynn						
Windsor Park				√		√

* These centres have limited opportunities for growth. i.e. are not growth centres. [Status of Valley Road (Table 8.2) needs to be confirmed i.e. the Auckland Plan identifies it as both a growth centre and as a not growth centre (Table 8.4)]

	RTN in 2011	*QTN in 2011*	*RTN in 2022*	*QTN in 2022*	*RTN in 2041*	QTN in 2041
Corridors						
Dominion Road		√		√		√
New North Road	√	√	√	√	√	√
Manukau Road		√		√		√
Remuera Road		√		√		√
Great South Road (Newmarket to Ellerslie)	√	√	√	√	√	√
Great North Road (City Fringe to Surrey Crescent)		√		√		√
Anzac Street / Taharoto Road / Wairau Road				√		√
Lincoln Road				√		√
Hobsonville Road				√		√
Rural Satellite Centres						
Helensville						
Kumeu Huapai			√		√	
Pukekohe			√		√	
Warkworth						
Wellsford						
Waiuku						

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